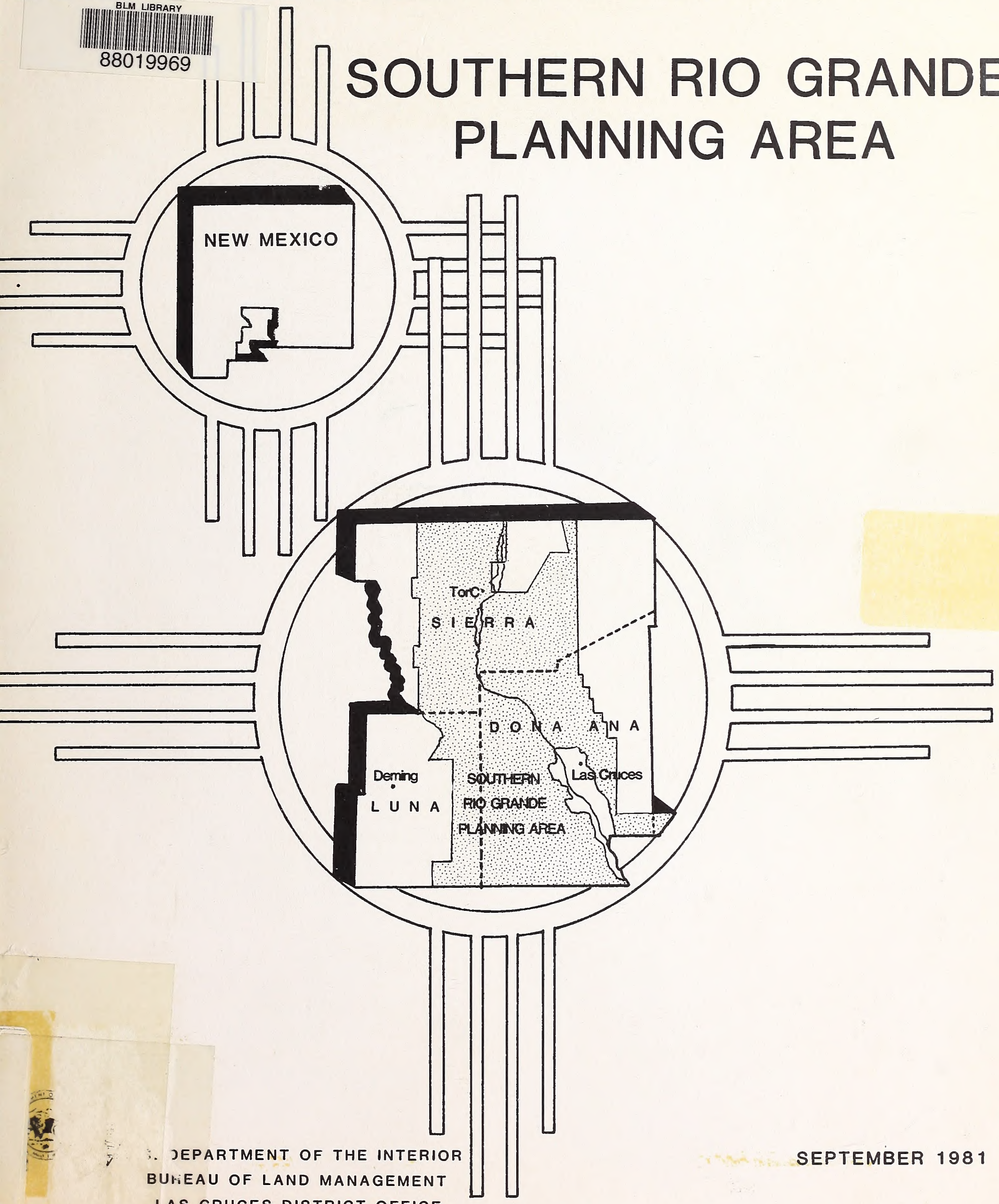
FINAL
GRAZING ENVIRONMENTAL IMPACT STATEMENT

SOUTHERN RIO GRANDE PLANNING AREA



U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
LAS CRUCES DISTRICT OFFICE

SEPTEMBER 1981

NOTICE

THIS IS THE FINAL ENVIRONMENTAL IMPACT STATEMENT (FEIS) FOR THE PROPOSED SOUTHERN RIO GRANDE PLANNING AREA GRAZING MANAGEMENT PROGRAM. THIS FEIS INCORPORATES THE DRAFT STATEMENT BY REFERENCE, AND INCLUDES A SUMMARY OF THE DRAFT STATEMENT, CHANGES TO THE DRAFT RESULTING FROM PUBLIC REVIEW AND COMMENT, A RECORD OF PUBLIC COMMENT ON THE DRAFT, AND THE RESPONSES TO THOSE COMMENTS. THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS) AND THIS FEIS TOGETHER CONSTITUTE THE COMPLETE FINAL ENVIRONMENTAL IMPACT STATEMENT.

A LIMITED NUMBER OF COPIES OF THE DEIS ARE AVAILABLE FROM THE BLM LAS CRUCES DISTRICT OFFICE, P. O. BOX 1420, LAS CRUCES, NEW MEXICO 88004.

IN REPLY REFER TO

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United States Department of the Interior

BUREAU OF LAND MANAGEMENT
DISTRICT OFFICE
P. O. Box 1420
Las Cruces, New Mexico
88004

Dear Reader:

The final environmental impact statement (FEIS) on the proposed grazing management program for the Southern Rio Grande Planning Area of the Las Cruces District in Southwestern New Mexico has been completed. The Southern Rio Grande Planning Area EIS analyzes the effects of the proposed grazing management program and four alternatives to that program.

This FEIS was prepared using the comments received through the public review process on the draft EIS. The FEIS is a departure from the usual procedure of completely reprinting the draft statement with changes and modifications based on public input. Because the changes suggested through the public review process did not require a major rewrite of the draft and substantial cost savings could be realized by reprinting only the response to comments and the corrections and modifications, the draft EIS has been incorporated into this FEIS by reference. Thus, this document must be used in conjunction with the draft EIS which was distributed to the public in late May, 1981. A limited number of copies of the draft are available from the BLM, Las Cruces District Office, P. O. Box 1420, Las Cruces, New Mexico, 88004.

The final environmental impact statement is not the decision document. The decision on the action to be taken will be based on the analysis contained in the FEIS, and public concerns and comments. No action can be taken for at least 30 days following filing of the final statement with the Environmental Protection Agency and distribution to the public. A brief summary document that outlines the management direction for the Southern Rio Grande Planning Area will be prepared and made available as soon as a decision is reached.

Many thanks to all those individuals and organizations who provided suggestions and comments on the draft. Your help has been invaluable in the preparation of a final environmental impact statement which will assist us to more efficiently and effectively manage the Southern Rio Grande Planning Area.

Sincerely yours,

Daniel C. B. Rathbun
District Manager

DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FINAL
ENVIRONMENTAL IMPACT STATEMENT
ON
GRAZING MANAGEMENT IN THE
SOUTHERN RIO GRANDE PLANNING AREA

Abstract: The Bureau of Land Management proposes to implement a livestock grazing management program for the Southern Rio Grande Planning Area of the Las Cruces District in southwestern New Mexico. The Planning Area includes portions of Dona Ana, Sierra, Luna, Socorro, and Otero Counties. This program would allocate forage to livestock and big-game, determine levels of livestock grazing management, identify needed support facilities, outline a general implementation schedule, list the standard operating procedures, and discuss the interrelationships with the other programs in the area. A Proposed Action and four alternatives (No Action, Elimination of Livestock Grazing, Maximization of Livestock Forage Production, and Enhancement of Other Resource Values) are considered. A discussion of the affected environment is briefly summarized, and the environmental consequences which would result from implementation of the Proposed Action and each alternative are analyzed in this Environmental Impact Statement.

Type of Action: (x) Administrative ( ) Legislative

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Comments have been requested from: See Chapter 4.

Date Filed with EPA: Draft: May 29, 1981
Final: SEP 18 1981

Charles W. Luscher
State Director, New Mexico

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SUMMARY

INTRODUCTION

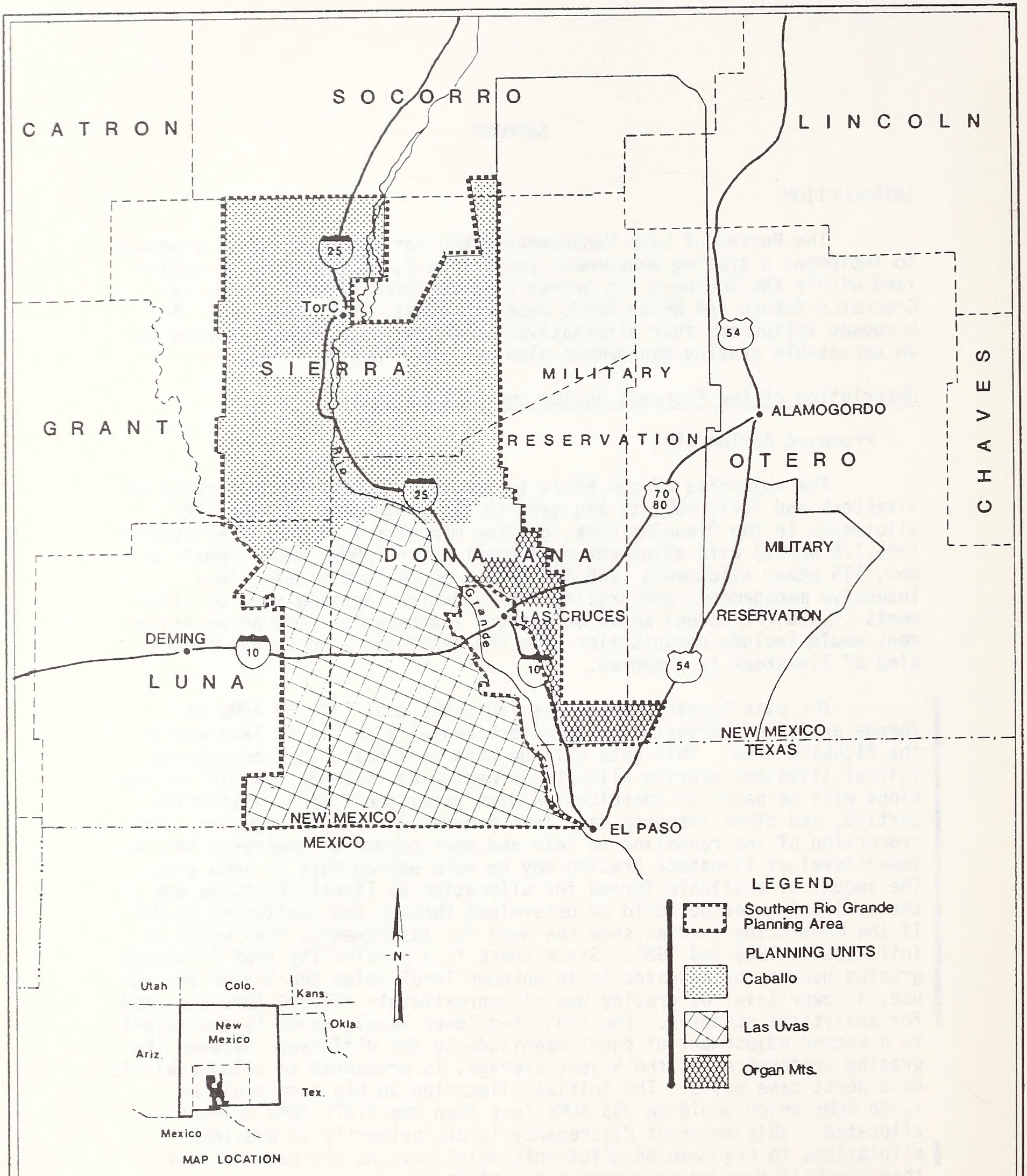
The Bureau of Land Management (BLM) Las Cruces District proposes to implement a grazing management program on 2,146,034 acres of public land within the Southern Rio Grande Planning Area (SRGPA) of the Las Cruces/Lordsburg and White Sands Resource Areas. (See Map 1-1.) A proposed action and four alternatives have been developed to arrive at an acceptable grazing management plan for the Planning Area.

Description of the Proposed Action and Alternatives

Proposed Action (PA)

The objective of the PA is to provide 215,070 AUMs of forage to livestock and 3,771 AUMs to big game in the long-term. Of the 198 allotments in the Planning Area, grazing management on the 13 allotments (365,175 acres) with allotment management plans (AMPs) would remain as now, 115 other allotments (265,655 acres) would remain under less intensive management, and grazing management on the remaining 70 allotments (1,486,772 acres) would be managed intensively. Intensive management would include consultation with the permittee. No change in the kind of livestock is proposed.

The past 5-year average use indicates that 192,364 AUMs of forage are being harvested by livestock annually on public land within the Planning Area. This data will be used as a basis for negotiating initial livestock grazing allocations beginning in 1983. Initial allocations will be based on consultation with permittees, other interested parties, and other resource data that becomes available. However, the proportion of the rangeland in fair and poor condition indicates that a lower level of livestock grazing may be more appropriate in some areas. The amount of available forage for allocation to livestock at the end of the monitoring period would be determined through the monitoring studies. If the monitoring studies show the need for adjustments, they would be initiated in 1985 and 1987. Since there is a possibility that livestock grazing use may be adjusted to an unknown level below the 5-year average use, a lower level of grazing use of approximately 165,500 AUMs was used for analytical purposes. The projected lower level, which is equivalent to a second adjustment of equal magnitude to the difference between the grazing preference and the 5-year average, is presented to allow analysis on a worst case basis. The initial allocation to big game would be 1,766 AUMs which would be 955 AUMs less than the 2,271 AUMs presently allocated. This apparent discrepancy is due primarily to previous allocations to big game on allotments which have no big game or less than one-half deer or pronghorn per section.



MAP 1-1

GENERAL LOCATION MAP

SOUTHERN RIO GRANDE PLANNING AREA

SOURCE: New Mexico State Highway Department and BLM Las Cruces Planning Documents

Construction of rangeland improvements and vegetation treatments would be required to implement the PA. These would include: 14 dirt tanks, 173 miles of pipeline, 177 drinking troughs, drilling or equipping 40 wells, 7 cattleguards, 34 storage tanks, 1 spring development, and 256 miles of fence. Vegetation treatment would include chemical treatment of 29,772 acres of mesquite and 9,705 acres of creosote, and mechanical treatment of 600 acres of cholla.

Monitoring studies to determine the effects of the livestock allocations, rangeland improvements, and vegetation treatments on plant composition, vigor, and ground cover would be necessary. At a minimum, the monitoring studies would be designed to collect data on actual livestock use, wildlife use, degree of key species utilization, climatic conditions, and rangeland ecological condition and trend.

No Action (NA) Alternative

Under the NA Alternative, forage allocation to livestock would remain at 223,617 AUMs, although it is not anticipated that the 5-year average use of 192,364 would be exceeded. Forage allocation to wildlife would be 2,721 AUMs.

Only the exisiting 13 AMP allotments would be managed intensively and monitored. No new rangeland improvements or vegetation treatments would be implemented in direct support of the grazing program, except that Rangeland Improvement Funds (8100) and operator-built rangeland improvements would continue as at present.

Elimination of Livestock Grazing (ELG) Alternative

Under the ELG Alternative, grazing on 2,146,034 acres of public land would be discontinued and 223,617 AUMs of grazing preference would be cancelled. No new grazing systems would be implemented, and those AMPs now implemented would be cancelled.

No rangeland improvements or treatments would be implemented or maintained unless needed for other BLM activities, such as wildlife and watershed. Rangeland improvements that serve no useful purpose would be removed from public land.

Maximization of Livestock Forage Production (MLFP) Alternative

The MLFP Alternative would initiate an intensive program of rangeland management techniques designed to achieve maximum forage production for livestock. Vegetation treatments would consist of chemical treatment of 391,318 acres of mesquite and 381,203 acres of creosote, and mechanical treatment of 12,318 acres of creosote, 11,765 acres of tarbush, and 600 acres of cholla.

Rangeland improvements would consist of 250 miles of pipeline, 354 new waters (including storage tanks, water troughs, and dirt tanks), 116 wells, 277 miles of fence, and 203 soil erosion structures.

Initial allocations would be 192,364 AUMs for livestock and 1,766 for wildlife. However, under the worst case situation (after monitoring) the allocation would be 165,500 AUMs for livestock and 1,766 AUMs for wildlife. Long-term allocations would be 305,609 AUMs for livestock and 4,299 AUMs for wildlife. This would be a decrease of 14 and 26 percent from the 5-year average licensed use and preference respectively in the short-term, and a 38 and 27 percent increase over the 5-year average licensed use and preference respectively in the long-term.

Under the MLFP Alternative, intensive grazing management would be implemented on 90 allotments (1,577,530 acres) , less intensive management on 95 allotments (174,987 acres), and present management on the 13 AMP allotments (365,175 acres).

Enhancement of Other Resource Values (EORV) Alternative

Under the EORV Alternative, livestock grazing would be reduced 50 percent from the PA on 1,438,784 acres in poor rangeland ecological condition, 25 percent on 644,409 acres in fair condition, and eliminated on 14,456 acres of riparian habitat and 14,629 acres of watershed in critical or severe erosion classes.

Initial forage allocation would be 192,364 AUMs for livestock and 1,766 AUMs for wildlife. However, under the worst case situation (after monitoring) the allocation would be 102,610 AUMs for livestock and 1,766 AUMs for wildlife. This would be a decrease of 47 and 54 percent from the 5-year average licensed use and preference respectively in the short-term. Rangeland improvements, vegetation treatments, and intensive management would be the same as under the PA. It is anticipated that by the year 2010, the forage allocation for livestock and wildlife would be 214,360 AUMs and 3,771 AUMs, respectively. This would be an increase of 10 percent over the 5-year average licensed use and a decrease of 4 percent from preference in the long-term.

Environmental Consequences of the Proposed Action and Alternatives

Site-specific Environmental Assessments (EAs) and Standard Operating Procedures would mitigate the impacts on Visual Resources, and no actions will be taken that would impair the wilderness values in designated Wilderness Study Areas. Therefore, they will not be discussed in this section.

Proposed Action (PA)

Vegetation would be permanently lost from 114 acres that would be occupied by proposed rangeland improvements.

Rangeland in poor ecological condition would decrease by 523,450 acres, and rangeland in fair and good condition would increase by 353,987 and 169,463 acres respectively. Rangeland in poor forage value class would decrease by 257,582 acres and on those in fair and good condition would increase by 180,375 and 77,207 acres respectively.

Average production of desirable and intermediate forage species would increase 151; 145; and 133 pounds per acre on grass, brush, and pinyon-juniper type vegetation respectively. Average percent of the total cover comprised of desirable and intermediate forage species would increase 21; 17; and 14 percent on grass, brush, and pinyon-juniper type vegetation respectively.

Chemical treatment on 29,772 acres of mesquite and 9,705 acres of creosote would reduce these species an average of 40 percent. Production and composition of desirable and intermediate forage species would increase two to three times in these areas.

Soils would be disturbed on 734 acres in short-term and 114 in the long-term.

Sediment yield would be reduced as much as 13 percent on some range sites. However, this would vary from range site to range site.

In the short-term soil erosion by wind would increase on 29,772 acres where chemical treatment of mesquite is implemented. In the long-term wind erosion would be less than existing because of increased cover.

The quantity of forage for big game would be adequate for optimum populations in the short-term. Analysis of shrub production data indicates that improvement in ecological condition would result in a lower production in deer browse, resulting in insufficient browse for optimum numbers in the long-term. Forbs could provide sufficient additional forage to provide for optimum numbers in the long-term. Habitat diversity and wildlife species diversity would increase in the long-term in most Standard Habitat Sites. Proposed rangeland improvements would generally benefit wildlife. Unless a riparian grazing treatment is adopted, habitat for riparian-associated threatened or endangered species would decline in the long-term. Threatened or endangered species not associated with riparian habitats would be provided with some habitat improvement.

Under the worst case situation, livestock stocking would be reduced approximately 14 percent from 5-year average licensed use and 26 percent from preference in the short-term, and increase approximately 12 percent over 5-year average and decrease 4 percent from preference in the long-term.

Intensive grazing management would be implemented on 70 allotments comprised of 1,486,772 acres, while less intensive grazing management

would be continued on 115 allotments comprised of 265,655 acres. Grazing management on the existing 13 allotments under AMPs would be the same as at present, 365,175 acres.

Runoff would be decreased as much as 6 percent depending on soil type, vegetative type, ground cover, and slope within the watersheds.

No significant changes in runoff rates would be expected as the result of construction of rangeland improvements or vegetation treatments.

Water consumption by livestock and big game would increase by 26 acre-feet by the year 2010.

Impacts on air quality from the various rangeland improvements and vegetation treatments would be minimal, localized, and of short duration.

The decrease in the number of livestock from 192,364 to 165,500 AUMs (worst case) in the short-term would decrease the impacts of trampling outside of livestock concentration areas. In the long-term, trampling would increase. Based on the number of acres per cultural site, the number of acres disturbed by construction of rangeland improvements, and the number of acres disturbed by heavy trampling around livestock water, 64 sites would be expected to be affected by the PA. Class III inventories prior to construction and Section 106 compliance procedures would mitigate most of the impacts.

Fences constructed in intensive recreation use areas would hinder off-road vehicle use (ORV) access.

Increased deer hunting pressure attributable to the PA would amount to 6,243 visitor days, an increase of 3,456 over the present level. Pronghorn hunting pressure would be expected to remain the same at 59 visitor days.

The PA or alternatives would not affect non-hunting visitor days. However, non-hunting visitor days would be expected to increase as the human population increases.

Under initial allocation, no change in livestock sales would occur. However, under the worst case at the end of the monitoring period, livestock sales would increase by about $800,000 due to reduction in animals, then drop in the next four years by as much as $990,000 below 1976-1980 averages annually. By 2010, sales would be expected to increase above 1976-1980 average levels. A short-term drop of $505,000 in net cash income to ranches is projected, with a long-term gain of over $200,000. Market values of livestock ranches would initially drop by about $2.5 million, with further reductions of another $2.5 million with full implementation of grazing level adjustments. In the long-term, the economic position of affected ranches would, in most cases, be slightly improved.

No Action (NA) Alternative

Rangeland in poor ecological condition would increase by 233,690 acres and rangeland in fair and good condition would decrease by 218,553 and 15,137 acres respectively. Rangeland in poor forage value class would increase by 64,191 acres and decrease by 47,763 and 16,828 acres on those in fair and good condition respectively.

Average production of desirable and intermediate forage species would decrease 17; 8; and 20 pounds per acre on grass, brush, and pinyon-juniper type vegetation respectively. Average percent of the total cover comprised of desirable and intermediate forage species would decrease 3; 1; and 2 percent on grass, brush, and pinyon-juniper type vegetation.

Impacts on threatened or endangered plant species would not change measurably from the existing situation.

Areas would continue to deteriorate where the soil resource is deteriorating and would continue to improve where the soil resource is improving (assuming no major change in climate, stocking rates, construction activities, etc.).

Areas of gravelly sand, gravelly, hills, breaks, and gravelly loam range sites would continue to have the highest estimated sediment yields per unit area, whereas the bottomland, salt flats, and sandy range sites would continue to have the lowest sediment yields per unit area.

Soil series making up the sandy, deep sand, and shallow sandy range sites would continue to be most susceptible to wind erosion.

Big game populations, except for pronghorn reintroductions, would not increase beyond present numbers. Habitat and wildlife species diversity would decline because of increasing brush invasions. Habitat for threatened or endangered animal species would decline because of decreasing diversity. Wildlife benefits would continue to occur from new livestock water developments funded with private capital, but added benefits from federally funded rangeland improvements could not be realized under this alternative.

Although the grazing preference of 223,617 AUMs would not change, actual grazing use probably would be approximately the same as the past 5-year average licensed use of 192,364 AUMs.

No significant changes in surface or ground water resources would occur under this alternative. Livestock and big game would continue to consume 214 acre-feet of water per year.

Impacts on air quality would be the same as at present.

No rangeland improvements are proposed under this alternative, except those which are proposed and would be completed on existing AMPs. It is predicted that two cultural sites would be impacted under this alternative. Class III inventories and Section 106 compliance procedures would be implemented as under the PA.

Demand for recreational activities would continue to increase in proportion to population growth.

Deer hunting visitor days would be expected to remain the same as existing levels of 2,787.

Present social and economic conditions would continue largely unchanged, both in the region generally and among the ranching population.

Elimination of Livestock Grazing (ELG) Alternative

Rangeland in poor ecological condition would decrease by 814,171 acres and rangeland in fair and good condition would increase by 533,602 and 280,569 acres respectively. Rangeland in poor forage value class would decrease by 500,343 acres and increase for fair and good by 369,162 and 131,181 respectively.

Average production of desirable and intermediate forage species would increase by 223; 193; and 211 pounds per acre on grass, brush, and pinyon-juniper type vegetation respectively. Average percent of the total cover comprised of desirable and intermediate forage species would increase 30; 25; and 23 percent on grass, brush, and pinyon-juniper type vegetation respectively.

Sediment yields would decrease as much as 39 percent on some range sites in the long-term. However, this would vary from range site to range site.

Deer populations would be provided with sufficient forage to increase beyond the multiple use optimum of 3,223. Pronghorn populations would increase slightly, from the present 385 to 450 animals, including the reintroductions. Production of big game forage would have an opportunity to increase. Habitat diversity and wildlife species diversity would increase. Habitat conditions would improve for threatened or endangered species.

Many permittees would be forced out of the livestock business under this alternative because they rely to a great extent on the public land within their allotments for their livestock operations.

Surface runoff would be decreased by as much as 17 percent on some range sites where vegetative cover would increase over 6 percent. Runoff would not decrease on watersheds with desert shrub vegetation

because lesser amounts of increased cover would occur. Runoff would not be affected on sandy, deep sand, shallow sandy, bottomland, salt flats, or clayey sites because of nearly level slopes or rapid infiltration rates.

The consumption of 213 acre-feet of water by livestock would be eliminated. Big game would consume 4 acre-feet of water.

No impacts on air quality would occur from the construction of rangeland improvements, vegetation treatments, or livestock eliminated from public land.

The impact of trampling by livestock on public land would be eliminated.

Recreation opportunities would increase through the removal of cattle and rangeland improvements, particularly fences from public land.

Deer hunting visitor days would increase to approximately 13,216 from the present 2,787.

Significant social and economic impacts would be experienced by the ranch community. Forty-nine ranches would be forced to close. Approximately 75 persons employed on these ranches would lose their jobs. Ranch income would drop by about $2.7 million with a greater than 60 percent decrease in livestock sales. Only some ranch operators in the large size categories would remain in the rangeland livestock business following elimination of grazing on public land.

Maximization of Livestock Forage Production (MLFP) Alternative

Vegetation would be permanently lost on 162 acres that would be occupied by proposed rangeland improvements.

Chemical treatments on 381,203 acres of mesquite and 391,218 acres of creosote would reduce these species an average of 40 percent.

Average production of desirable and intermediate forage species would increase 548 pounds per acre, and average percent of the total cover comprised of desirable and intermediate species would increase 28 percent.

Mechanical treatment and seeding on 12,318 acres of creosote and 11,765 acres of tarbush would increase the average production of desirable and intermediate forage species by 944 pounds per acre. Seeded species would comprise 84 percent of the vegetative cover.

Areas where threatened or engangered plants occur would be identified and avoided where adverse impacts would occur from rangeland improvements or vegetation treatments.

The construction of rangeland improvements would disturb soils on 1,067 acres in the short-term and 162 acres in the long-term.

In the short-term, wind erosion would increase on 391,318 acres because of vegetation treatment on mesquite. In the long-term it would be less than at present because of increased ground cover.

No significant long-term changes in sediment yields would be expected from the creosote vegetation treatment areas.

Sediment yield would be decreased as much as 13 percent on some range sites, but on others no change would be expected.

Deer populations would be provided sufficient forage to reach optimum numbers in both the short-term and long-term. Pronghorn populations would reach optimum numbers because of extensive proposed brush treatment.

Production of desirable and intermediate shrub species would decline. Wildlife habitat and wildlife species diversity would increase. Unless a riparian grazing treatment is adopted, habitat for riparian-associated threatened or endangered species would decline in the long-term. Threatened or endangered species associated with grassland would be benefited in the long-term by the proposed brush treatment.

Under the worst case, livestock stocking would be reduced approximately 14 percent from 5-year average licensed use and 26 percent from preference in the short-term, and increase approximately 37 percent over the 5-year average and 27 percent over preference in the long-term.

An additional 20 allotments comprised of 90,758 acres would be managed intensively. The total acres proposed for intensive management and less intensive management would be 1,577,530 and 174,897 acres respectively. The 13 allotments, comprised of 365,175 acres, presently under AMPs would be managed as now.

No significant decrease in runoff would be expected in the long-term.

Water consumption by livestock and big game would increase about 37 percent in the long-term.

There would be a higher concentration of air pollutants under this alternative than any other alternative because of the greater number of proposed rangeland improvements and acres of vegetation treatments. However, this would be localized and of short duration. In the long-term air quality would improve as the result of increased ground cover.

It is predicted that 237 cultural sites would be impacted because of the increase in the number of rangeland improvements and vegetation treatments. Impacts would be mitigated by Class III surveys and Section 106 compliance procedures.

The increase of livestock numbers and rangeland improvements would increase the conflicts between recreationists and livestock.

ORV access would be restricted in areas where vegetation treatments are applied.

Deer hunting recreation days would increase to 6,243 from the present 2,787. Pronghorn hunting visitor days attributable to public land would increase to 224 from the present 59.

Short-term social and economic impacts would be similar to those of the PA. In the long-term, benefits to the ranching population would be much greater than under the PA. Livestock sales would increase from 1976-1980 levels by $1.5 million, and net cash income would increase by nearly $1 million. Market values of livestock ranches would increase by almost $7 million in the long-term.

Enhancement of Other Resource Values (EORV) Alternative

Vegetation would be permanently lost from 132 acres that would be occupied by rangeland improvements.

Rangeland in poor ecological condition would decrease 620,343 acres. Rangeland in fair and good condition would increase 413,879 and 206,464 acres respectively. Rangeland in poor forage value class would decrease by 390,208 acres and increase 295,690 and 94,568 acres on those in fair and good condition respectively.

Average production of desirable and intermediate forage species would increase 187; 168; and 172 pounds per acre on grass, brush, and pinyon-juniper type vegetation respectively. Average percent of the total cover comprised of desirable and intermediate forage species would increase 26; 21; and 18 percent on grass, brush, and pinyon-juniper type vegetation respectively.

Soils would be disturbed on 826 acres in the short-term and 132 acres in the long-term where rangeland improvements are constructed.

Sediment yields would be reduced up to 27 percent depending on the range site. No significant long-term impacts would result from the vegetation treatments.

Sufficient forage would be available for deer populations to reach optimum populations in both the short-term and long-term. Pronghorn populations would not reach optimum because of limited habitat. Habitat

diversity and wildlife species diversity would increase in both the short-term and long-term especially in riparian habitats. Production of desirable and intermediate shrub species would decline. Habitat improvements would occur for all threatened or endangered species which have declined because of habitat changes due to livestock grazing. Those threatened or endangered species associated with riparian habitats would benefit from the proposed fencing of the riparian areas.

In the short-term, livestock AUMs would be decreased approximately 47 and 54 percent from the 5-year average and preference respectively, under the worst case situation. In the long-term, they would be increased approximately 10 percent from the 5-year average and decreased 4 percent from preference.

In the long-term under the EORV Alternative, the amount of AUMs available under the PA (215,070 AUMs) would not be reached because of the fencing of 14,456 acres of riparian habitat and 14,629 acres of watershed in critical or severe erosion classes.

Surface runoff would decrease about 10 percent on some range sites. However, this would vary from range site to range site.

Surface runoff would decrease about 10 percent on the protected watersheds in critical and severe erosion condition. No change would be expected from the protected riparian habitat.

Water consumption by livestock and big game would increase about 10 percent in the long-term.

Effects on air quality from the construction of rangeland improvements and vegetation treatments would be minimal, localized, and of short duration.

It is predicted that 67 cultural sites would be impacted by this alternative. Impacts would be mitigated by Class III surveys and Section 106 compliance procedures.

Interaction and conflict between recreationists and livestock would continue under this alternative.

Deer hunting visitor days would increase to approximately 6,243.

Significant worst case short-term reductions in permitted livestock grazing would lead to the closure of 16 ranches, the loss of 121 full-time job equivalents mostly in the agricultural sector, and the decrease in personal income of $3.7 million, including $2.1 million in ranch operators' and workers' income. Livestock sales would be reduced by more than $3 million. Market values of ranch operations with allotments on public land would drop by about $19 million. Significant ranch consolidation would be likely in the long-term resulting in a reduced

ranching population. Increased use of public land for activities other than ranching would be expected to bring the ranching population into greater conflict with other users.

The following table shows the comparison of the impacts of the proposed action and alternatives.

COMPARISON OF IMPACTS OF THE PROPOSED ACTION AND ALTERNATIVES

	Existing	Proposed Action		No Action Alternative Future Environment		Elimination of Livestock Grazing Alternative		Maximization of Livestock Forage Production Alternative		Enhancement of Other Resource Values Alternative	
		Short Term	Long Term	Short Term	Long Term	Short Term	Long Term	Short Term	Long Term	Short Term	Long Term
Grazing Use (AUMs)	192,364[a]	165,500[b]	215,070	223,617[c]	223,617[c]	0	0	165,500[b]	305,609	102,610[b]	214,360
Physical Setting	stable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Vegetation											
Ecological Condition (acres)											
Good	32,318	NS	201,781	NS	17,181	NS+	312,887	NS	289,801	NS+	238,782
Fair	660,347	NS	1,014,334	NS	441,794	NS+	1,193,949	NS	1,230,195	NS+	1,074,226
Poor	1,453,369	NS	929,919	NS	1,687,059	NS+	639,198	NS	626,038	NS+	833,026
Forage Value (acres)											
Good	280,305	NS	357,512	NS	263,477	NS+	411,486	NS	444,975	NS+	374,873
Fair	668,885	NS	849,260	NS	621,522	NS+	1,038,047	NS	1,038,413	NS+	964,545
Poor	1,196,844	NS	939,262	NS	1,261,035	NS+	696,501	NS	662,646	NS+	806,616
Production (lbs/ac)[d]											
Grass Type	333	NS	484	NS	316	NS+	556			NS+	520
Brush Type	165	NS	310	NS	157	NS+	358	1,109[f]	713[g]	NS+	333
Pinyon-Juniper Type	387	NS	520	NS	367	NS+	598			NS+	559
Composition (percent)[e]											
Grass Type	50	NS	71	NS	47	NS+	80			NS+	76
Brush Type	30	NS	47	NS	29	NS+	55	84[f]	58[g]	NS+	51
Pinyon-Juniper Type	54	NS	68	NS	52	NS+	77				72
Threatened or Endangered (T/E) Plant Species	0	0	0	0	0	+	+	-[f]	-[g]	+	+
Soils											
Sediment Yield (acre-ft/sq mi/yr)	NC	NC	0.80[h]	NC	NC	NC	0.62[h]	NC	0.80[h]	NC	0.75[h]
Wildlife											
AUMs Allocated	2,721*	1,766	3,771	2,721*	2,721*	12,340[i]	11,068[i]	1,766	4,299	1,766	3,771
Pronghorn AUMs		234	688			3,777	3,388	234	1,218	234	688
Deer AUMs		1,532	3,081			8,563	7,680	1,532	3,081	1,532	3,081
Pronghorn Population[j]	385	435	450	435	435	435	450	435	1,059	435	450
Deer Population[j]	1,363	1,363	3,223	1,363	1,363	1,363	6,976	1,363	3,223	1,363	3,223
Estimated Overall Change in Standard Habitat Sites	E	E	I	E	O	I	I	E	I	I	I
Production of Desirable and Intermediate Shrub Species	E	E	O	E	E	E	I[k]	E	O	E	O
T/E Animal Species											
Riparian Associated	0	0	-	0	-	+	+	0	-	+	+
Nonriparian Associated	0	0	+	0	-	+	+	0	+	+	+
Livestock Grazing											
Number of Operators	198	198	198	198	198	0	0	198	198	198	198
AUs	18,635	13,792	17,922	18,635	18,635	0	0	13,792	25,467	8,551	17,863
Water Resources											
Water Use (acre-feet/yr)	214	184	240	214	214	2	4	184	340	114	239
Surface Runoff (acres)											
0-9 percent decrease	NC	NC	2,146,034	NC	NC	NC	1,946,401	NC	2,146,034	NC	1,946,401
10 - 20 percent decrease	NC	NC	0	NC	NC	NC	199,633	NC	0	NC	199,633
Air Quality	stable	local dust increase	NS	NS	NS	dust decrease	dust decrease	local dust increase	NS	NS	dust decrease
Cultural Resources											
Rate of Disturbance from existing		NS	NS	NS	NS	+	+	-	+	+	+
Visual Resources	stable	NS	NS	NC	NC	NS+	NS+	-	NS	NS-	NS-
Wilderness	stable	NS	NS	NS	NS	NS+	NS+	NS	NS	NS	NS
Recreation											
Visitor Days	141,200	NS	NS	NC	NC	NS+	NS+	NS-	mixed+	NS-	NS-
Deer Hunting Visitor Days	2,787	2,787	6,243	2,787	2,787	2,787	13,216	2,787	6,243	2,787	6,243
Pronghorn Hunting Visitor Days	59	59	59	59	59	59	59	59	224	59	59
Economic Conditions											
Number of Ranches	153	153	153	153	153	104	45	153	153	137	100
Livestock Sales (millions $)	7.2	6.2	7.6	7.2	7.2	2.9	2.9	6.8	8.7	4.2	4.2
Net Cash Income (millions $)	3.7	3.2	3.9	3.7	3.7	1.0	1.0	3.5	4.5	1.3	1.3
Big Game Visitor Day Values											
Direct Income Effect	48,382	48,382	107,134	48,382	48,382	48,382	225,675	48,382	109,039	48,382	107,134
Regional Income Effect	69,573	69,573	154,058	69,573	69,573	69,573	324,520	69,573	158,091	69,573	154,058

Source: BLM Las Cruces District EIS Team Files, 1980.

Notes:
a/Preference is 223,617 AUMs but 5-year average licensed use is 192,364.
b/Worst case basis.
c/Shows present preference, but actual use would probably average the same as the 5-year average of 192,364 AUMs.
d/Includes production of desirable and intermediate forage species only. (weighted average all condition classes)
e/Percent of total ground cover comprised of desirable and intermediate forage species (weighted average all condition classes).
f/Mechanical treatment and seedling only, other values same as PA.
g/Chemical treatment only, other values same as PA.
h/Variable depending on range site.
i/This would not be allocated, however it would be available.
AUMs are comprised of palatable shrub species.
j/Populations for areas with more than 5 animals per section (Map 2-2)
k/Assumes more than 10 points improvement in ecological condition class.

NC: No change from existing (changes not quantifiable)
NS: Not significant
+: Beneficial
-: Adverse
I: Increased value
E: Existing value
O: Decrease value
0: Zero
*: Taken from case files. Case files do not break down AUMs by deer or pronghorn.

CONSULTATION AND COORDINATION

CONSULTATION AND COORDINATION

INTRODUCTION

This chapter discusses the consultation and coordination conducted in the preparation of the Draft Environmental Impact Statement (DEIS) and Final EIS. The discussion includes the consultation, coordination, and public involvement during the planning, the development of the proposed action and alternatives, the writing of the DEIS for the Southern Rio Grande Planning Area (SRGPA), and the public review comments and responses on the DEIS. A list of persons involved in the preparation of the EIS is provided in Table 1.

PUBLIC CONSULTATION/SCOPING

On April 21, 1978, letters were sent to all agencies, organizations, and individuals on the SRGPA mailing list requesting information for the Planning Area Analysis. On the same date, a "Land Use Planning and Zoning by Local Government Checklist" (Form 1600-3) was sent to county and city planning agencies throughout the area.

On August 14, 1978, news releases were sent to all news media on the district media list encouraging public involvement in the scoping and planning process.

On August 28, 1978, letters requesting scoping and planning information were sent to the following: the Forest Service (Gila, Lincoln, and Cibola); Council of Governments (Las Cruces and Silver City); Director, New Mexico Department of Game and Fish; Chairman, Luna and Dona Ana County Commissioners; and the Mayors of Las Cruces, Deming, Hatch, and Truth or Consequences.

On January 24, 1979, meeting announcements and workbooks on the BLM Planning System were sent to all agencies, groups, and individuals on the SRGPA mailing list. Meetings were held in Las Cruces (February 13, 1979), Truth or Consequences (February 14, 1979), and Albuquerque, New Mexico (February 15, 1979). The purpose of the meetings was to obtain information needed for the writing of the Management Framework Plan. Approximately 50 people attended the meeting in Las Cruces, 45 attended the meeting in Truth or Consequences, and seven attended the meeting in Albuquerque. Newspaper releases concerning the meeting were published in the following papers: the Las Cruces Sun News, Las Cruces Bulletin, El Paso Herald Post, Albuquerque Journal, Albuquerque Tribune, and Truth or Consequences Herald.

On April 14, 1980, letters were sent to all grazing permittees describing the Las Cruces District allotment analysis procedures, in which each permittee would be contacted individually by a range conservationist to tell them about the upcoming EIS and to gather information

TABLE 1

LIST OF PREPARERS

NAME	EIS RESPONSIBILITY	EDUCATION	EXPERIENCE	
Ed Webb	Team Leader	B.S., Wildlife Management Utah State University	BLM - 17 yrs.	Wildlife Specialist Area Manager Range Conservationist Environmental Coordinator
Robert F. Anderson	Technical Coordinator Land Use and Transportation	B.S., Agriculture (minor - Economics) Texas A&M University Accredited Rural Appraiser- Amer. Soc. of Farm Mgrs. and Rural Appr. (ASFM&RA)	BLM - 18 yrs. 12 yrs.	Area Manager Realty Specialist Range Conservationist Farm & Ranch Operations
Tom Birch	Vegetation	B.S., Animal Production M.S., Range Management University of Wyoming	BLM - 19 yrs. 11 yrs.	Chief, Division of Operations Natural Resource Specialist Range Conservationist Superintendent, Wyoming Agriculture Experiment Station
Bruce G. Call	Soils, Climate and Water	B.S., Agriculture (Range and Soil Science) New Mexico State University	BLM - 3 yrs. USFS - 7 mos.	Range Technician Range Conservationist Soil Scientist Forestry Technician Soil Technician
Thomas C. Custer	Topography and Geology	B.S., Geology New Mexico State University	BLM - 5 yrs. USGS - 1 yr.	Geologist Physical Science Technician
Rena A. Gutierrez	Writer-Editor	B.A., Journalism/Mass Communications New Mexico State University	BLM - 2 yrs.	Public Information Aid Clerk-Typist Writer-Editor
Kimberly A. Harrison	Mag-Card Operator	Sophomore, University of Texas at El Paso	BLM - 2 yrs. El Paso Community College - 4 yrs.	Clerk-Typist Secretary II
Kenneth E. Holmes	Wildlife	B.S., M.A., Biology Sul Ross State University	BLM - 4 yrs. EPA - 4 yrs. Corps of Engs. - 3 yrs	Wildlife Management Specialist Biologist, Ecologist, Environmental Protection Spec. Biologist
Jim Jackson	Social and Economic	B.A., English B.S., Agricultural Economics New Mexico State University	BLM - 9 mos. Range Improvement Task Force - 5 mos.	Outdoor Recreation Planner Regional Economist Research Assistant
Jeff Jarvis	Visual Resources, Recreation, Wilderness, ACECs	B.S., Parks & Recreation Management Ohio State University	BLM - 2 yrs. NPS - 2 yrs. FWS - 9 mos.	Outdoor Recreation Planner Park Ranger Work Coor. (Youth Program)
Pete M. Laudeman	Cultural Resources	B.A.; M.A., Anthropology University of Arizona	BLM - 6 yrs.	Archaeologist
Bill A. Mathwig	Livestock Grazing	B.S., Range Management Montana State University	BLM - 6 yrs.	Range Conservationist
Mary Elva Parrish	Office Manager		BLM - 4 yrs. DOD - 6 yrs.	Planning/Environmental Clerk Office Manager Clerk-Typist
Gilbert Valencia	Cartographic Aid		BLM - 4 yrs.	Cartographic Aid

CONTRIBUTORS & REVIEWERS

Las Cruces District

Daniel C. B. Rathbun, District Manager
Donnie Sparks, Assistant District Manager
William Leifeste, Chief, Div. of Resource Management
Larry Nunez, Area Manager, White Sands Resource Area
William Markenrider, Area Manager, Las Cruces/Lordsburg Resource Area

Marbridge House (Contractors)

Ron Rinkle, Sociologist
Tom Ward, Economist

New Mexico State Office

Christian Anderson, Air Quality Specialist
Don G. Boyer, Writer-Editor
Beverly Cochran, Sociologist
John A. Dimas, Wildlife Biologist
Herbert Garn, Hydrologist
Lynn C. Kincaid, Archaeologist
Duane D. Michael, Range Specialist
Teodoro B. Rael, Regional Economist
Verlyn D. Saladen, Soil Scientist
Lee L. Upham, Wildlife Biologist
John W. Whitney, Environmental Coordinator
Dan D. Wood, Wilderness Specialist
Bill Dalness, Geologist

concerning their allotments. The allotment analysis was conducted from April through July 1980.

The SRGPA planning and EIS schedules were discussed at the Grazing Advisory Board meetings on April 18, May 6, and August 26, 1980. Members of the New Mexico Range Improvement Task Force, the State Land Office, and other individuals attended some of those meetings.

The SRGPA planning and EIS schedules and the proposed action were discussed at the initial meeting of the District Advisory Council on September 23, 1980.

The proposed action and alternatives were discussed at formal scoping meetings held in Las Cruces and Truth or Consequences on September 24 and 25, 1980, respectively. The purpose of the meetings was to determine the scope of the issues to be discussed in the EIS and to receive information from the public which would aid in the writing of the EIS. Approximately 500 letters were sent to agencies, groups, and individuals on the SRGPA mailing list, and press releases were sent to the District's media list. Twenty-four people attended the meeting in Las Cruces and 21 attended the meeting in Truth or Consequences.

The major issues and concerns that were discussed during the scoping meetings were:

Issues or Concerns	Responses
1. The elimination of livestock grazing is not feasible.	It is BLM policy that we analyze this alternative (WO Instruction Memo. No. 79-445). Analysis of this alternative will provide an indication of the adverse impacts or additional benefits, if any, of removing all livestock from public land.
2. Proposed new alternatives.	
a. Sell the public land.	Sale of the public land is a separate subject not applicable to this EIS.
b. Combine alternatives to come up with a new alternative.	This is possible during the decision making process. The decision maker does not have to select one alternative, but can select portions from any or all alternatives.

3. Concern about the accuracy of SVIM data.	The monitoring studies following the EIS will determine the accuracy of the SVIM data.
4. Concern expressed regarding social and economic impacts.	The social and economic concerns and impacts expressed at the public meetings are discussed in Chapter 3 of the EIS.
5. Concern expressed about using 780 pounds of forage per AUM.	This figure is given in "A Glossary of Terms Used in Range Management" published by the Society for Range Management. Monitoring studies may modify this figure.

ALTERNATIVES CONSIDERED BUT NOT ANALYZED

One alternative was considered but not analyzed. The alternative was to use the Soil-Vegetation Inventory Method (SVIM) data to arrive at the proper livestock stocking level. The field work for this inventory was completed in 1978 and 1979 and was automated for the final phase. The initial plant production printouts received in November, 1980, contained apparent errors. Two major problems were found involving the mathematical summation of certain data and the phenological adjustment factors. These errors were corrected and another printout was received in late December, 1980.

Since receipt of the printout, additional field work was conducted on selected allotments to assess the accuracy of the data. The field work indicated that some of the data were accurate but other data, particularly in the mesquite dune vegetation type were inconsistent. Because of the rigid deadline in filing the EIS by September 1981, it was not possible to resolve these inconsistencies in the data and include this alternative in the EIS.

AGENCY COORDINATION

On December 4, 1980 formal consultation with the U.S. Fish and Wildlife Service was initiated by the EIS Team wildlife biologist in coordination with the BLM New Mexico State Office. On December 15, 1981, the Fish and Wildlife Service sent a list of the threatened or endangered species which may occur in the Planning Area. The wildlife biologist completed the biological assessment and it was sent to the Regional Director of the U.S. Fish and Wildlife Service through the BLM State Director, July 2, 1979. The Biological Opinion from the Fish and Wildlife Service was received by August 5, 1981. Correspondence concerning the Biological Assessment and Opinion are found in Appendix D of the FEIS.

A letter was received from the Advisory Council on Historic Preservation stating that the DEIS was inadequate because it did not

demonstrate compliance with the Programmatic Memorandum of Agreement for grazing statements which was executed between the Bureau, Council, and the National Conference of State Historic Preservation Officers (SHPO). The main concern was the BLM's failure to conduct a Class II inventory or an acceptable alternative to this as agreed to by the SHPO.

On July 8, 1981, a letter was sent to SHPO giving reasons for not being able to conduct a Class II inventory and BLM's alternative. On July 30, 1981, a letter was recieved from SHPO concurring with BLM's alternative because of lack of time and funding to obtain a larger sample size. Both letters appear in Appendix H of the FEIS.

BLM District personnel contacted representatives of various federal, state, and local agencies, private organizations, and individuals during the writing of the EIS. Members of the EIS Team contacted numerous individuals, including New Mexico State University professors and personnel from the New Mexico Department of Game and Fish during the preparation of the EIS.

Personnel from Harbridge House, the contractor for the social and economic sections of the EIS, held informal consultations with several federal, state, local and university groups as well as with individuals who may be impacted by the proposed action or alternatives.

PUBLIC REVIEW OF THE DEIS

The DEIS was sent for filing with the Environmental Protection Agency and made available to the public on May 26, 1981. The Notice of Availability and Public Hearing dates were published in the June 3, 1981 Federal Register (Vol. 46, No. 106, p. 29769). The Notice announced a 60-day public review period ending July 24, 1981.

Prior to distribution of the DEIS, cards of inquiry were sent to professional societies, interest groups, and livestock permittees asking them if they would be interested in receiving the DEIS. As a result, approximately 600 copies were sent to reviewing agencies and to interested members of the general public.

Letters were sent to agencies listed in the preparation plan as having jurisdiction or expertise two weeks prior to the public comment deadline reminding them of the deadline. On July 24, 1981 (day of the deadline), the agencies who did not respond were contacted by phone to determine why the comments had not been received and when they might be expected. Phone confirmations were filled out at this time.

The DEIS was sent to the following agencies, interest groups, and individuals for their comments. An asterisk indicates those who responded.

Congressional Delegation and New Mexico State Legislators

U.S. Senator Pete Domenici
U.S. Senator Harrison Schmitt
U.S. Representative Joe Skeen
State Senator Wyatt Atkins
State Senator Charlie Lee
State Senator J. J. (Jimmy) Rogers
State Senator Frank O. Papen
State Senator I. M. Smalley
State Senator Joseph A. Fidel
State Representative Von Rue Crawford
State Representative Brent Westmoreland
State Representative Ralph D. Hartman
State Representative William O'Donnell
State Representative Mary T. Thompson
State Representative Murray Ryan
State Representative James Lee Martin
State Representative John J. Mershon
State Representative Maurice Hobson
State Representative George E. Fettinger
State Representative Randall Sabine

New Mexico State Agencies

*Office of the Governor
*Environmental Improvement Division
*Department of Game and Fish
*State Historic Preservation Officer
*State Land Office
*State Engineer
*State Planning Office
State Livestock Board
Bureau of Mines and Mineral Resources
*State Parks and Recreation Department
*State Highway Department
State Oil Conservation
*Department of Natural Resources
*Department of Agriculture
*State Clearinghouse
State Heritage Program
*Department of State Forestry
Interstate Streams Commission
*State Energy and Minerals Department
Museum of New Mexico
New Mexico State University
University of New Mexico
Western New Mexico University
Eastern New Mexico University
*Range Improvement Task Force

Federal Agencies

U.S. Department of Agriculture
*Forest Service
*Soil Conservation Service
Agricultural Stabilization and Conservation Service
Environmental Quality Acts
Farmers Home Administration
U.S. Department of the Army
Deputy Assistant Secretary of the Army
*White Sands Missile Range
Fort Bliss
Holloman Air Force Base
*Corps of Engineers
*U.S. Environmental Protection Agency
U.S. Department of the Interior
*Advisory Council on Historic Preservation
*Fish and Wildlife Service
*Bureau of Reclamation
U.S. Geological Survey
Bureau of Mines
*National Park Service
Heritage Conservation & Recreation Service
U.S. Department of Justice
Border Patrol
Immigration and Naturalization Service
International Boundary & Water Commission
U.S. Department of Transporation

Regional and Local Agencies

*Dona Ana County Commissioners
Luna County Commissioners
Otero County Commissioners
Sierra County Commissioners
Socorro County Commissioners
El Paso County Commissioners
Mayor, City of Las Cruces
Mayor, Village of Hatch
Mayor, Village of Williamsburg
Mayor, La Mesilla
Mayor, City of Deming
Mayor, City of Truth or Consequences

Regional and Local Agencies

Mayor, Anthony
Mayor, Columbus
*Mayor, El Paso
City Manager, Alamogordo
City Manager, Deming
City Manager, Truth or Consequences
Jornada Resource Conservation District
Southwest New Mexico Resource Conservation District
Caballo Soil and Water Conservation District
Sierra Soil and Water Conservation District
Southwest New Mexico Council of Governments
Southeast New Mexico Economic Development District
Southern Rio Grande Council of Governments
Chamber of Commerce, Truth or Consequences
Chamber of Commerce, Las Cruces
Chamber of Commerce, Deming
Chamber of Commerce, Alamogordo
Chamber of Commerce, El Paso
County Agent, Dona Ana County
County Agent, Truth or Consequences
Director of Planning, Dona Ana County

Livestock Related Organizations

New Mexico Cattle Growers Association
*New Mexico Farm and Livestock Bureau
*Southwest New Mexico Grazing Association

Professional Societies

The Wilderness Society
New Mexico Chapter, Society of Range Management

Texas State Agencies

Budget & Planning Office
Texas Historical Commission
Texas Tech University

Texas State Agencies (con't)

*University of Texas at El Paso
El Paso Centennial Museum

Conservation Organizations

Sierra Club
New Mexico Wildlife Federation
The Wilderness Center
New Mexico Citizens for Clean Air & Water
Jornado Experimental Range
New Mexico Conservation Coordinating Council
New Mexico Wilderness Study Committee
*Dona Ana County Assoc. Sportsmen
San Andres Refuge
El Paso Archaeological Society
Mesilla Valley Audubon Society
*New Mexico Natural History Institute
*National Council of Public Land Users
Natural Resources Defense Council
*Wildlife Management Institute
National Wildlife Federation
Nevada Outdoor Recreation Association
Public Land Council
Human Systems Research
*New Mexico Archaeological Council, Inc.
*The Gila Wilderness Committee

Other Groups

Jim Huff's Four Wheel Drive Center
Las Cruces ORV Club
Albuquerque Off-Road Runners, Inc.
Gemcrafters and Explorers
Hot Springs Gun Club
Picacho Gun Club
Orienteering Club
New Mexico Radio Communications Department
New Mexico Association for Environmental Education
New Mexico Oil and Gas Association
Water Resources Research Institute
Federal Land Bank

Individuals

Copies of the DEIS were sent to all permittees, the Las Cruces District Advisory Board, the District Advisory Council, and all other individuals listed on the SRGPA mailing list.

HEARINGS

Formal public hearings were held in Las Cruces on July 8, 1981 and in Truth or Consequences on July 9, 1981 to receive public comments as to the accuracy and adequacy of the DEIS. Twenty-one people attended the Las Cruces hearing with four presenting oral comments. One written comment was received at the Las Cruces Hearing. Twenty people attended the Truth or Consequences hearing with two presenting oral comments. Hearings transcripts are available for review in the Las Cruces District Office.

All persons who gave oral comments sent letters covering what they said at the hearings, except Mr. A. D. Brownfield. The answers to oral comments by the other speakers are answered in the comment and response section of the FEIS. Mr. Brownfield expressed concern about using the 5-year average as the initial allocation and the lower level used for analytical purposes. Both of these concerns have been clarified on page 96 of the FEIS (DEIS p. 1-4).

COMMENTS AND RESPONSES

During the comment period (May 26 to July 24, 1981) 26 letters from the public and agencies were received. After the close of the comment period, an additional 8 letters were received. If required, all letters received were responded to in the FEIS. Letters which did not address the adequacy or accuracy of the DEIS were not responded to in the FEIS, but letters will be sent responding to their concerns. (Table 2 lists the speakers at the public hearings.) Individuals or organizations who sent letters are listed in Table 3. All letters are reproduced here in their entirety. The responses are presented adjacent to the comments in each letter.

Responses have been made to all substantive comments presented in the letters and hearings transcripts. Substantive comments were considered to be those which addressed either the adequacy and accuracy of the DEIS or the merits of the alternatives or both. Any additional letters received will receive full consideration in the final decision.

TABLE 2

PUBLIC HEARINGS SPEAKERS

Name	Agency, Organization, or Individual
July 8, 1981 - Las Cruces, New Mexico	
A. D. Brownfield	Rancher
Jerry Schickedanz	Range Improvement Task Force
Jim Knight	Range Improvement Task Force
John Fowler (presented by Jerry Schickedanz)	Range Improvement Task Force
John W. Riley	Riley Realty - Ranch Broker
July 9, 1981 - Truth or Consequences, New Mexico	
A. D. Brownfield	Rancher
Rod Hille	Southwest New Mexico Grazing Association

TABLE 3

COMMENT LETTERS RECEIVED

Assigned Number In Order of Receipt	Name of Commentator
1	*State Planning Division (State Clearinghouse)
2	*Environmental Protection Agency
3	Advisory Council on Historic Preservation
4	*Corps of Engineers
5	*U.S. Forest Service
6	National Council of Public Land Users
7	U.S. Fish and Wildlife Service
8	John W. Riley
9	*New Mexico Natural History Institute
10	Environmental Protection Agency
11	Bureau of Reclamation
12	Wildlife Management Institute
13	Soil Conservation Service
14	*City of El Paso
15	*El Paso Water Utilities
16	New Mexico Archeological Council, Inc.
17	*Dona Ana County Manager
18	Dona Ana County Associated Sportsmen
19	New Mexico Farm and Livestock Bureau
20	*A. R. "Dick" Hille
21	*Governor of New Mexico
22	Las Cruces District Grazing Advisory Board
23	New Mexico Department of Agriculture
24	White Sands Missile Range
25	Range Improvement Task Force
/ 26	*Bureau of Reclamation
27	*J. W. Cox
28	The Gila Wilderness Committee
29	State Planning Division (State Clearinghouse)
30	*Joe Bill Nunn
31	National Park Service
32	David Carmichael
33	*New Mexico Department of Game and Fish
34	Southwest New Mexico Grazing Association

Notes: * - Indicates letters not requiring a response in FEIS.
/ - Comment letters below the line were received after the comment period closed.

1

STATE PLANNING DIVISION
(STATE CLEARINGHOUSE) **MIS-2**

APPLICANT NOTIFICATION OF RECEIPT

DATE: June 3, 1981

TO: Department of Interior
Bureau of Land Management
P.O. Box 1420
Las Cruces, New Mexico 88004

ATT.: Mr. Ed Webb

FROM: State Planning Division
Department of Finance & Administration
505 Don Gaspar
Santa Fe, New Mexico 87501
(505) 827-2073

Project Title DEIS Grazing Southern Rio Grande Planning Area SAI Number 81 06 11 013

Federal Funding Agency DOI Federal Catalog Number 15.000

This is to notify you that we have received your:

_____Notification of Intent

_____Preapplication

_X_Application and Standard Federal Form 424 and State Supplemental Form MIS-1

The following action has been taken.

_____Your application does not require review. thank you for sending a copy to the Planning Division. Please advise us when Federal Action is taken on your application.

_X_The review of your application is being coordinated by _____ LillieMae Ortiz
(Lead Agency Review Coordinator)

_____ Planning Bureau, (505) 827-5191
(Department) (Telephone)

You may expect to receive copies of the Review by July 2, 1981
(Date)

YOUR APPLICATION SHOULD ALSO BE SUBMITTED FOR REVIEW AND COMMENT TO THE SUBSTATE CLEARINGHOUSE(S) CHECKED BELOW. PLEASE DO SO IN ORDER TO AVOID DELAY OF FEDERAL ACTION.

_____ San Juan Regional Committee
_____ Southwest New Mexico Council of Governments
_____ McKinley Area Council of Governments
_____ Eastern Plains Council of Governments
_____ Middle Rio Grande Council of Governments
_____ North Central New Mexico Economic Development District
_____ Southeastern New Mexico Economic Development District
_X_ Southern Rio Grande Council of Governments

(See other side for names and addresses of the substate clearinghouses)

Approved January, 1980
Secretary, DFA

White - Original for applicant
Canary - SPD copy
Pink - COG's copy
Goldenrod - Lead copy

11

2

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

June 5, 1981

Mr. Ed Webb
EIS Team Leader
Bureau of Land Management
Las Cruces District Office
P.O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Webb:

This is to acknowledge receipt of your proposed release of the Draft Environmental Impact Statement (EIS) and hearings on the Livestock Grazing Management Program in Southern Rio Grande, New Mexico. We appreciate the invitation to attend; however, due to lack of travel funds we cannot participate.

Thank you for your consideration and protection of the environment.

Sincerely,

Clinton B. Spotts
Regional EIS Coordinator

Advisory Council On Historic Preservation

1522 K Street, NW
Washington, DC 20005

Reply to:

Lake Plaza South, Suite 616
44 Union Boulevard
Lakewood, CO 80228

June 4, 1981

Mr. Daniel C.B. Rathburn
District Manager
Las Cruces District Office
Bureau of Land Management
1705 North Valley Drive
P.O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Rathburn:

Thank you for your June 2, 1981, request for comments on the draft environmental statement for Grazing Management in the Southern Rio Grande Planning Area, New Mexico. Pursuant to Section 102(2)(c) of the National Environmental Policy Act of 1969 and the Council's regulations, "Protection of Historic and Cultural Properties" (36 CFR Part 800), we have determined that the environmental statement is inadequate because it does not demonstrate compliance with the Programmatic Memorandum of Agreement for grazing statements which was executed between the Bureau, the Council, and the National Conference of State Historic Preservation Officers, ratified January 14, 1980. Because the environmental statement fails to meet the stipulations of the Agreement, the Council considers the document incomplete with regard to your agency's responsibilities under Section 106 of the National Historic Preservation Act of 1966 (16 U.S.C. Sec. 470f, as amended, 90 Stat. 1320).

3-1 We are especially concerned over the Bureau's failure to conduct a Class II inventory as required by Stipulation I of the Agreement. Stipulation I provides a mechanism whereby an acceptable alternative to this Class II requirement may be developed and implemented in consultation with the SHPO. However, the New Mexico SHPO's letter, dated April 17, 1981, suggests that only a 1% survey of the project area has been completed and that no acceptable alternative has been proposed.

3-1 See letters of consultation with the State Historic Preservation Officer, Appendix H (FEIS p. 141).

Please note that Stipulation X of the Agreement provides a vehicle by which the provisions of the Agreement may be reviewed and modified as appropriate. We recommend that your office carefully review the Agreement and if you find the document to be unreasonable or if you find that the Bureau cannot meet its responsibilities, please advise us to this effect so that we may initiate further consultation between the ratifying parties to resolve the difficulty.

Thank you for your cooperation. If you have any questions or require assistance, please call Charles M. Niquette of the Council staff at telephone number (303) 234-4946, an FTS number.

Sincerely,

Louis S. Wall
Chief, Western Division
of Project Review

4

DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1580
ALBUQUERQUE, NEW MEXICO 87103

REPLY TO ATTENTION OF:

SWAED-EP

10 June 1981

Mr. Ed Webb, EIS Team Leader
BLM - Las Cruces District Office
P. O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Webb:

The Draft Environmental Impact Statement on the proposed livestock grazing management program for the Southern Rio Grande Planning Area has been reviewed. The Albuquerque District is presently studying the flood control problems and opportunities of the Cuchillo Negro Creek and Mescal Arroyo watersheds which are within your study boundaries. The proposed grazing management program will not affect our study. However, if the alternative program calling for maximum livestock forage production is implemented our study could be affected.

I appreciate the opportunity to comment on your Draft Environmental Impact Statement.

Sincerely,

JASPER H. COOMBES, P.E.
Chief, Engineering Division

5

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
517 Gold Ave., SW.
Albuquerque, New Mexico 87102

1950

June 12, 1981

Ed Webb, EIS Team Leader
Bureau of Land Management
Las Cruces District Office
P. O. Box 1420
Las Cruces, New Mexico 88004

1905-1980
75TH ANNIVERSARY

Dear Mr. Webb:

We appreciate receiving a copy of the Draft Grazing Environmental Statement for the Southern Rio Grande Planning Area. The northwest portion of the planning area is contiguous to the Gila and Cibola National Forests. In order to simplify your review of our comments, we have asked Forest Supervisor Ken Scoggin to coordinate our responses. You will hear from him in the near future.

Our preliminary review indicates you have recognized generally poor ecological conditions and developed management alternatives to address the needs of the rangelands involved.

Sincerely,

JAMES C. OVERBAY
Deputy Regional Forester

National Council of Public Land Users

P. O. Box 811

Grand Junction, Colorado 81501

Paul Maxwell, President

17 June 81

Herbert Snyder, Secretary

Mr. Daniel C. B. Rathbun, District Manager
USDI Bureau of Land Management
Las Cruces District Office
P.O. Box 1420
Las Cruces, New Mexico 88004

Dear Sir:

Reference is made to the Draft Environment Impact Statement on the proposed livestock grazing management program for the Southern Rio Grande Planning Area in Southwestern New Mexico.

6-1 On page 1-10, the term "semidesert rangelands" is used but the Glossary of terms does not define a "semidesert", or a "desert". These definitions should be included in the "glossary" for a better understanding of the subject matter. Is this the reason the usual section on "Climate" is omitted?

On page 1-24, the statement "Under the No Action Alternative, rangeland that is currently deteriorating would not improve". If this is the case, why is a reduction, or elimination, of grazing proposed on some areas to allow them to improve?

Page 2-3 states, "The Southern Desert elevations range from 3,000 to 5,200 feet. Summer precipitation averages 7 to 10 inches. The Western Plateau elevations range from 5,000 to 8,500 feet. Average annual precipitation is 12 to 16 inches. Page 2-34, Water Use, - - - Evaporation (70 to 100 inches per year from a Class A pan)".

Undoubtedly you are aware that it is the relationship between natural precipitation and evaporation that establishes a "desert" and no amount of mechanical structures, herbicides or vegetative manipulation for domestic livestock grazing will compensate for it.

The only reason the "creosotebush", and some others, "intrude" on the grasslands is because they have an immunity to livestock consumption that other plants do not possess, and a tolerance for drouth. Since no reference can be found to the temperatures produced from direct solar rays, no comparison can be made for the temperature differential arising from shade. This may have a significant effect upon atmospheric thermals and precipitation, as well as microbiologic propagation necessary for plant growth. The creosote bush, and other non-edible plants should be preserved, rather than eliminated.

6-1 This change is noted in the Errata Section, p. 92.

In such a fragile and adverse environment, domestic livestock grazing is more destructive than beneficial.

Yours truly

Herbert Snyder, Secretary

Copy to Natural Resources Defense Council
Charles W. Luscher, State Director
Ed Webb?

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

Field Supervisor
Ecological Services, USFWS
Suite C, 3530 Pan American Highway, NE
Albuquerque, New Mexico 87107

June 23, 1981

Memorandum

To: Mr. Ed Webb, Team Leader, Bureau of Land Management, Las Cruces, New Mexico

From: Field Supervisor, FWS, Ecological Services, Albuquerque, New Mexico

Subject: Draft Grazing Environmental Impact Statement, Southern Rio Grande Planning Area, Dona Ana, Sierra, Luna, Socorro and Otero Counties, New Mexico (BLM) (EC 81/27)

Mr. Rathbun's undated letter asked for our comments on the subject DEIS. Of the five management alternatives presented, we prefer the elimination of livestock grazing. We prefer this alternative because of the projected increase in big game populations, the increase in income and recreation due to hunting and benefits to endangered species and vegetation. For the remaining four alternatives our descending order of preference is: 2-proposed action, 3-enhancement of other resource values, 4-maximization of livestock forage production and 5-no action.

7-1 1. Any threatened or endangered species to be affected should be discussed on a species by species basis.

7-2 2. The report should discuss the impacts on reptiles and amphibians caused by each alternative.

3. The Bureau of Land Management proposes a monitoring program for the vegetation to periodically update their stocking rates. Wildlife populations should be monitored concurrently to determine effects of grazing on wildlife. These impacts should be considered when determining grazing intensities.

7-3 4. To help determine the management impacts to wildlife all data collected should be presented in summary form.

7-1 Page 3-41 of the DEIS includes the impacts on some threatened or endangered species. Appendix D (FEIS p. 131) includes the BLM's Biological Assessment on a species by species basis and the FWS's Biological Opinion for in-depth analysis. In addition to this consultation, the FWS Albuquerque Ecological Services field station will address the state species in separate correspondence. At the time the FEIS was sent to the printer, the correspondence had not been received. This information will be available in the Las Cruces District Office.

7-2 The basic inventory data was determined to be insufficient to predict impacts on reptiles and amphibians by comparisons between different ecological conditions and standard habitat sites. A list of reptiles and amphibians occurring in the Planning Area and their preferred habitats is given in Appendix D-1. The impacts to habitats are discussed in Chapter 3 and provides some indications of impacts on amphibians and reptiles, but the impacts are not quantifiable. No portion of the Proposed Action or alternatives, using available data, is believed likely to result in significant impacts to reptiles or amphibians.

7-3 Document size limitations did not permit inclusion of the summaries of all data collected. The raw data and basic summaries are available in the Las Cruces District Office. We also expect to have data computerized very soon.

7

7-4 5. Throughout the report, the use of a term "desirable" should be clarified to identify what animal the vegetation is desirable for.

7-5 6. Discussion of AUMS for wildlife should be specified for both deer and pronghorn.

7-6 7. It would be helpful to include maps of Organ Mountain, Las Uvas and Caballo planning units.

We have the following specific comments:

7-7 Summary, page xvi, paragraph 8. The increase of deer populations from 3,223 to 7,113 should be included.

7-8 Table following page xxi. AUMS should be presented for wildlife under the Elimination of Livestock Grazing Alternative to compare with other alternatives.

7-9 Summary, Elimination of Livestock Grazing Alternative, page xvi. Two more benefits of this alternative are the dropping of predator control activities and the increase in habitat quality and quantity for endangered species.

7-10 Objectives, page 1-3, 4th paragraoh. Management techniques to achieve the 6 objectives should be specified.

7-11 Figure 1-1 to 1-5, page 1-7. The AUM's for wildlife should be specified for deer and pronghorn. Figure 1-3 should predict AUMS.

Enhancement of other Resource Values (EORV) Alternative, page 1-21. This alternative does not contain plans on how to enhance other values. Plans should be presented to accomodate biological research, wildlife refuges, hunting, sightseeing, off road vehicle use, and photography.

7-12 Table 2-8, page 2-19. The diversity index should be explained. Under footnote a, D-3 should be changed to D-2. Also D-3 on pages 2-18 and 3-32 should also be changed to D-2.

Table 2-9, page 2-22. Management recommendations for federal and state endangered fauna should be included with the alternatives. A table showing which alternatives contain the various recommendations would be helpful.

7-13 Table 2-10, page 2-25. The column entitled "Percent of Upland Game and Bird Records by SHS" should be explained.

7-14 Map 2-10, page 2-38. The statement "All other public land would be open" within the Legend should be explained.

18

7-4 See p. GL-3 for a definition of "desirable forage plant." For big game, desirable and intermediate shrub species were equivalent to the A&B species as listed in "Big Game Browse Range Analysis Techniques for New Mexico" developed by the New Mexico Department of Game and Fish, BLM, and the U.S. Forest Service.

When the term "desirable" is used in the livestock or vegetation sections of the EIS, it refers to livestock. When the term "desirable shrub species" is used in the wildlife section of the EIS, it refers to wildlife.

7-5 See revised Summary p. xxi.

7-6 Map 1-1 has been modified to show Planning Unit boundaries. (See FEIS p. 95.)

7-7 Population management is the responsibility of the New Mexico Department of Game and Fish. Deer will be provided with enough forage to increase from 1,363 to 6,976.

7-8 See response to comment 7-5.

7-9 See page xvi, paragraph 8, last sentence concerning habitat for threatened or endangered species. Predator control was not covered in Chapter 3. On page 1-25, it is stated that predator control was conducted on 10 allotments in the Planning Area. This was considered insignificant in evaluating impacts. Predator control operations of the New Mexico Department of Game and Fish would continue as need arises.

7-10 Management techniques are expressed under the Proposed Action in Chapter 1.

7-11 The present allocation to deer and pronghorn is not known as the case files show only allocations to wildlife. Figure 1-3 has been changed to show estimated AUMs for deer and pronghorn. (See FEIS p. 97.)

7-12 Diversity index was explained on page D-10, Appendix D-2 in the DEIS. The correction of Appendix D-3 to D-2 has been made in the list of Errata, FEIS, p. 90.

7-13 See revised DEIS p. 2-25 (FEIS p. 101).

7-14 This change is noted in the Errata section, p. 89.

7-15 Creosote Breaks, page 3-38. This paragraph states that the possibility of improvement in the creosote breaks habitat is doubtful and then goes on to say that production would improve under the proposed action alternative. This discrepancy should be clarified.

7-16 Page 3-41, 3rd paragraph. The monitoring which will be conducted in riparian habitats should be clarified for the proposed action alternative. The last sentence in this paragraph states that habitat will decline for some endangered species. The species which will be effected should be listed.

7-17 Page 3-45, 5th paragraph. The second sentence indicates that summer bird populations are higher in poor condition sites than in fair condition sites. The reason for this statement should be presented since it seems logical to assume the reverse is true.

7-18 Page 3-46, 1st paragraph. Please explain why deer and pronghorn forage is projected to be lower in the long term than in the short term.

7-19 Summary, page 3-46. Dove populations should increase in the riparian habitat under the elimination of livestock grazing alternative as is stated on page 3-32. Endangered species habitat should also increase as projected in the Table after page xxi. Improvement of dove habitat and endangered species habitat should be added to this summary.

7-20 Page 3-65, 1st paragraph. Please explain how livestock trampling will decrease in the short term and increase in the long term with the Enhancement of other Resource Values Alternative.

7-21 Appendix D-2, page D-8. The months and years of data collection should be included. It is unclear what trapline composition was finally used. The last paragraph mentions implied relative abundance was expressed from the data but we can not find this anywhere in the report.

7-22 Appendix D-2, page D-9. This page mentions various field studies but we can not find most of this information in the report.

7-23 Appendix I, page I-1. The estimate for hunter days and visitor days should be specify what time period was used.

for Richard A. Hoppe

cc:
FWS/OEC, Washington, D.C.
State Director, Bureau of Land Management, Santa Fe, New Mexico
Area Manager, U.S. Fish and Wildlife Service, Phoenix, Arizona

7-15 See revised DEIS p. 3-38 (FEIS p. 111).

7-16 See revised DEIS p. 3-41 (FEIS p. 113).

7-17 See revised DEIS p. 3-45 (FEIS p. 116)

7-18 See revised DEIS p. 3-46 (FEIS p. 117).

7-19 See revised DEIS p. 3-46 (FEIS p. 117).

7-20 See revised DEIS p. 3-65 (FEIS p. 120).

7-21 Data collection occurred for four seasons during 1977-78.

7-22 See response to 7-3.

7-23 This change is noted in the Errata section, p. 92.

Riley Realty
905 CONWAY NO. 11 Ranch Brokers
LAS CRUCES, NEW MEXICO 88001 • (505) 524-2226

July 8, 1981

Mr. Daniel C. B. Rathbun
District Manager
Bureau of Land Management
1705 N. Valley Drive
P.O. Box 1420
Las Cruces, New Mexico 88004

Attention Ed Webb
EIS Team Leader

Gentlemen;

Thank you for the Draft of the Southern Rio Grande Planning Unit Environmental Impact Statement on the proposed livestock grazing management program.

Please include the following comments in the SRG-EIS record.

On January 16, 1981 the Las Cruces District Bureau of Land Management office notified each allottee in the Southern Rio Grande Planning Unit of the Soil-Vegetal Inventory Method (SVIM) survey results. The Bureau later rescinded the notice, and has included in the SRG-EIS, the 5-year average licensed use as the proposed forage allocation to livestock on each allotment.

The Bureau was correct in withdrawing the SVIM data grazing capacities from the SRG-EIS, but the substitution of averaged livestock licensed numbers over the past 2,3,4, or 5 years is equally erroneous (Page E-15). Grazing capacities can be determined through correlation of actual grazing use data and range condition resulting from that grazing, but grazing licenses alone, without consideration of actual grazing use, range conditions, weather, class of livestock, and grazing management systems in effect, do not establish grazing capacities, and do not provide a sound basis for grazing capacity allocations.

The following data taken from the SRG-EIS illustrate this point.

8

The Las Uvas Planning Unit (Page E-2) consists of forty-nine grazing allotments. Thirty-nine of these allotments (79.59%) show Zero percentage (0%) of the allotment in "Good" ecological condition class.

Twelve of the forty-nine allotments (24.49%) are rated entirely (100%) in the "Poor" ecological condition class.

Only three of the forty-nine allotments (6.12%) show less than 12% of the allotment rated in the "Poor" ecological condition class.

One allotment shows 57.6% of the lands rated in the "Good" ecological condition class, 24.3% are rated "Fair", and 11.6% are rated in the "Poor" category. Considering range condition, this is the best of the forty-nine allotments with the next best allotment rating 0% "Good", 100% "Fair" and 0% "Poor".

Page E-9 of the SRG-EIS shows a present allocation for the above allotment of 1,848 animal unit months of grazing use which may be converted to 154 cattle year long. It also shows the 5-year average licensed use to be 1,245 AUMs, and a proposed allocation of 1,245 AUMs of forage on Federal range.

Page E-16 of the SRG-EIS shows a further reduction of AUMs on controlled lands in the unit from 148 AUMs to 108 AUMs. This results in a total of 1,353 AUMs proposed, or 113 cows year long.

This is a reduction of 26.79% of the grazing capacity on the best conditioned allotment in the Las Uvas Planning Unit. The allottee elected to license less than 154 cattle on the allotment and will be penalized by the SRG-EIS proposal. BLM assumes only 1,353 AUMs were licensed because forage was not available for additional numbers of livestock. This assumption may not be valid.

In comparison, a second Las Uvas Planning Unit case analysis shows an allotment rated 100% in the "Poor" ecological condition class (Page E-2). On this allotment the 5-year average licensed use exceeded the total Federal range grazing preference (Page E-9), and the allottee will be rewarded with a 2 AUM increase in his Federal range grazing preference (Page E-16).

Page ix of the SRG-EIS Summary states, "The initial livestock grazing allocation of 192,364 AUMs would be based on the current 5-year average in conjunction with information gained through consultation with permittees and other interested parties and other resource data that became available. The initial allocation would be implemented in 1983. Monitoring studies would be initiated in conjunction with the initial allocation to determine if adjustments would be needed. If the monitoring studies show the need for adjustments, they would be initiated in 1985 and 1987."

This states that the initial allocations will be based on the 5-year averages, and they will be implemented in 1983.

Monitoring studies have been initiated on approximately one-third of the allotments and will be continued on these same allotments during the current grazing season. The initial allocations will be implemented by grazing decisions to be written not later than September 1982.

The Draft SRG-EIS is not clear as to how the initial allocations will be implemented on the two-thirds of the allotments that will not be monitored before the decisions are written in September 1982.

8-1 The final SRG-EIS should be expanded to fully explain the implementation-monitoring process and to cover the contingencies of static and reduced operating budgets.

Sincerely yours,

John W. Riley

John W. Riley

8-1 See revised DEIS p. 1-4 (FEIS p. 96).

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Henry M. Zeller, Secretary
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JUL 13 1981

District Manager, Las Cruces District
US Bureau of Land Management
Post Office Box 1420
Las Cruces, New Mexico 88004

Attn: Mr Ed Webb, EIS Team Leader

Subject: Comments on Draft EIS on Grazing, Southern Rio Grande Planning Area.

Dear Sir:

This Draft EIS is an imposing document, displaying a great deal of information as well as the results of a lot of work. In spite of all this, however, it comes to the wrong conclusion in the choice of a preferred alternative. A better conclusion could have been reached had the history of the vegetation of the area been treated in more detail and the results of its mismanagement disclosed and analysed in some detail. Conclusions could have been drawn as to the ecological disaster which has overtaken these plant communities, thus bringing about a better visualization of future management options.

Although no natural area baseline is available to show what the original vegetation was like before the heavy introduction of domestic livestock a hundred years or so ago, the plant communities of the planning area in the 1880's have been plotted from information provided in the New Mexico land surveys conducted then. This work has been done under the direction of Dr Dick-Peddie of NMSU. His results have been confirmed by others, both before it and after, including the late Dr Edward F Castetter of UNM.

All results point to one conclusion—the vegetative cover of the lands now known by the BLM as the Southern Rio Grande Planning Area was generally grassland. Since the 1880's, a century of misuse has converted this desirable cover to what is best described in general as desert scrub, except in patches where some grass perseveres. This destructive misuse has consisted almost entirely of overgrazing by domestic livestock. The process which has overtaken the lands of the Planning Area can be very simply and accurately described as desertification.

Any attempt to manage this Planning Area to improve its use for domestic livestock is up against a challenge of virtually unbeatable proportions. The managers of the land are up against ecological change brought on artificially by man through overuse by livestock. Whether this process can be reversed is a grave question. The primitive vegetation was the climatic climax of another day. In the climate of that day it was in a state of equilibrium which, although

fluctuating as always, did so around a relatively stable norm. As climatic conditions have become less favorable, the relict climax became less stable. The pioneer livestockmen who began the use of these lands were not equipped to recognize this situation so they opted for economic gain based on their mistaken evaluation of the resource. They moved in on the land and the forage it offered as though it were some sort of bonanza. What they did in the long term was to destroy the grassland. The descendants of the old timers continue in the same tradition, whereas the truth is that domestic livestock has pretty much had its day on this range. It is very doubtful if the vegetation can ever be restored to anything like its old cover and composition. There is no longer any suggestion of a bonanza, nor do we know what a new climax, undisturbed, would be like.

There is only one way to get any real improvement in the plant cover, and that is drastically to reduce the numbers of grazing livestock. Even at best, the vegetation was never intended, in an ecological sense, to support large ungulates in the numbers or the concentrations that the livestock industry has taken for granted. The livestock industry must reduce its expectations and settle down for the long haul both for their own long-term good and for the good of the human habitat which serves all of us.

It is certain that the long-term carrying capacity of the land and its forage for domestic livestock, considering the demands of the wildlife ungulates for forage, and of other wildlife for food, shelter, and cover, is no more than a fraction of what the burden has been. The alternative chosen for implementation in managing the Southern Rio Grande Planning Area for grazing must be chosen with this in mind, if there is to be any confidence in its effectiveness.

Looking at each of the alternatives considered in the EIS:

1) The Preferred Alternative: As we see it, this program is to be preferred from a political point of view. It inflicts the least pain on the ranchers compatible with giving the appearance of sincerity in striving for improvement of the range. It is a program of compromise, which offers only moderate hope that it can accomplish its objective. It seems most likely that it can only ameliorate the ecological situation, perhaps slowing down the desertification process.

2) No Action Alternative: The ecological situation is dynamic. Its adoption would continue to push the land and vegetation on a downhill course. Many ranchers might like it, but it would harm them in the long term, possibly even putting them out of business.

3) Elimination of Livestock Grazing Alternative: From an ecological point of view, this is certainly the best choice, but it is politically impossible. In an indeterminate time (many years), it would be possible gradually to reopen the range to domestic livestock, but this sort of program would be impossible to administer. Economically, it would be extremely disruptive.

4) Maximization of Livestock Forage Production Alternative: The drastic destruction of the vegetation would simultaneously destroy the fauna,

(3)

District Manager, Las Cruces District, BLM JUL 13 1981

even including the grazing ungulates. Habitat damage and general disturbance for all would be extreme. The keynote of such a program would be a battle with nature, which would have the odds against it. Ecological change is a gradual process which maintains a dynamic balance as it goes. In attempting to maximize forage for domestic livestock we would be aiming in the direction of a sort of monoculture with the idea of getting it overnight, so to speak in ecological terms. The likely result of such an attempt would be merely to accelerate desertification. The attempt would be more than the ecological condition could stand.

5) Enhancement of Other Resource Values Alternative: This is the second (*) best alternative from an ecological point of view, but it is more acceptable politically. Even so, it would no doubt cause an uproar among the livestockmen, because it would cause them pain in the short term. At the same time, it does offer hope in the long term. Ecological change is a gradual process which can be reversed only over time at its own speed. It would apply the only method for ecological restoration offering real hope for success, that is, to remove, or at least to reduce materially, the numbers of domestic livestock inflicted on the range. It would pay off economically in the long term, with good management. It rejects the idea of monoculture, honoring with effective action the principles of multiple use and sustained yield. The only doubt we have with regard to the way this alternative is explained in the Draft EIS is as to whether numbers of domestic livestock are actually reduced enough. In the background, moreover, is that the thought of results justifying increased grazing by 2010 is overoptimistic. The time is more likely to be 2090, and numbers should always and invariably be adjusted to real carrying capacity for domestic livestock, with multiple use and sustained yield in mind. *(See the BLC Alternative - No 3.)

We strongly recommend that the NEW alternative (No 5 above) be adopted for managing grazing and obtaining ecological improvement of the range and habitat of the Southern Rio Grande Planning Area. Reduction of domestic livestock numbers is the key feature of this alternative, but running just as importantly should be publicity of the reasons for the choice, to orient the general public, accompanied by a strong program to educate the ranchers.

It is time to stop pulling punches to conceal the truth about the western ranges. It is also time to stop subsidizing the mining of the ranges by operators who put their own short term profit above the general good.

In closing, I would like to continue emphasis on the need for a management baseline consisting of a series of selected natural areas representing the spectrum of natural values (ecological/biological and geological) in the Planning Area. Current management is handicapped by the absence of such a baseline. We should take action now to correct this lack, for it is only through the controls afforded by such a baseline that we can detect change with any accuracy.

Sincerely

Henry A. Beller
Secretary

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION VI
1201 ELM STREET
DALLAS, TEXAS 75270

July 14, 1981

Mr. Ed Webb
EIS Team Leader
BLM - Las Cruces District Office
P.O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Webb:

We have completed our review of the Draft Environmental Impact Statement (EIS) on the proposed Bureau of Land Management's (BLM's) livestock grazing management program for the Southern Rio Grande Planning Area in southwestern New Mexico. The planning area encompasses 2,146,034 acres of public land. The purpose of the project is to provide adequate forage to livestock and big game in the long-term and to protect and enhance the soil and vegetation resources of the planning area.

The EIS presented a proposed management plan and four alternatives including the no action alternative. The proposed grazing management plan was selected because it was a composite plan that provided adequate forage to livestock and big game, and also improved the condition of the public rangeland. The alternatives were rejected because they failed to provide fully for both rangeland and livestock.

The following comments are provided for your consideration when preparing the Final EIS:

10-1 1. The Draft EIS would have been a stronger document if it had discussed in greater detail how the chemicals in the proposed herbicides would affect the quality of the surface and ground water resources in the planning area. The Final EIS should address the issue.

10-2 2. On pages 3-55 and 56, the EIS estimates that runoff in the planning area will decrease by 6 percent because of an increase in vegetative cover, and water consumption by livestock will increase 11 percent. The projected increase in water consumption is 26 acre-feet/year on a long-term basis. The Final EIS should determine if that amount of additional water consumption will have a significant impact on water resources in the area.

10-3 3. State water quality standards for stream reaches in the planning area are listed on pages F-4 and 5 in Appendix F. Dissolved oxygen (DO) is an important parameter that should also be listed, and we ask that this be done in the Final EIS. For your convenience, we have listed below the approved New Mexico State DO water quality standards for each of the appropriate tables:

10-1 See revised DEIS p. 3-56 (FEIS p. 118).

10-2 See revised DEIS p. 3-57 (FEIS p. 119).

10-3 The tables in Appendix F were revised to include the New Mexico State standards for dissolved oxygen (DO). See pp. 128-129 of the FEIS.

Top table, page F-4, DO=4.0 mg/l
Bottom table, page F-4, DO=5.0 mg/l
Top table, page F-5, DO=5.0 mg/l
Bottom table, page F-5, DO=5.0 mg/l

10-4 4. The temperature in the bottom table on page F-5 should be 32.2° C rather than 37.2° C.

We classify your Draft EIS as LO-2. Specifically, we have no objections to the project as described; however, we are requesting additional information on water quality and herbicides to evaluate fully the environmental impacts of the proposed project. Our classification will be published in the Federal Register according to our responsibility to inform the public of our views on proposed Federal actions under Section 309 of the Clean Air Act.

Definitions of the categories are provided on the enclosure. Our procedure is to categorize the EIS on both the environmental consequences of the proposed action and on the adequacy of the EIS at the draft stage, whenever possible.

We appreciated the opportunity to review the Draft EIS. Please send our office five (5) copies of the Final EIS at the same time it is sent to the Office of Federal Activities, U.S. Environmental Protection Agency, Washington, D.C.

Sincerely,

Frances E. Phillips

Frances E. Phillips
Acting Regional Administrator

Enclosure

10-4 The correction is included in the table on page 129 of the FEIS.

ENVIRONMENTAL IMPACT OF THE ACTION

LO - Lack of Objections

EPA has no objections to the proposed action as described in the draft impact statement; or suggests only minor changes in the proposed action.

ER - Environmental Reservations

EPA has reservations concerning the environmental effects of certain aspects of the proposed action. EPA believes that further study of suggested alternatives or modifications is required and has asked the originating Federal agency to re-assess these aspects.

EU - Environmentally Unsatisfactory

EPA believes that the proposed action is unsatisfactory because of its potentially harmful effect on the environment. Furthermore, the Agency believes that the potential safeguards which might be utilized may not adequately protect the environment from hazards arising from this action. The Agency recommends that alternatives to the action be analyzed further (including the possibility of no action at all).

ADEQUACY OF THE IMPACT STATEMENT

Category 1 - Adequate

The draft impact statement adequately sets forth the environmental impact of the proposed project or action as well as alternatives reasonably available to the project or action.

Category 2 - Insufficient Information

EPA believes the draft impact statement does not contain sufficient information to assess fully the environmental impact of the proposed project or action. However, from the information submitted, the Agency is able to make a preliminary determination of the impact on the environment. EPA has requested that the originator provide the information that was not included in the draft statement.

Category 3 - Inadequate

EPA believes that the draft impact statement does not adequately assess the environmental impact of the proposed project or action, or that the statement inadequately analyzes reasonably available alternatives. The Agency has requested more information and analysis concerning the potential environmental hazards and has asked that substantial revision be made to the impact statement. If a draft statement is assigned a Category 3, no rating will be made of the project or action, since a basis does not generally exist on which to make a determination.

United States Department of the Interior

BUREAU OF RECLAMATION
SOUTHWEST REGION
COMMERCE BUILDING, 714 S. TYLER, SUITE 201
AMARILLO, TEXAS 79101

IN REPLY
REFER TO: 150

JUL 17 1981

Memorandum

To: EIS Team Leader (Mr. Ed Webb), Las Cruces District Office, Bureau of Land Management, Las Cruces, NM 88004

From: Regional Director

Subject: Review of Draft Environmental Impact Statement on Grazing Management for the Southern Rio Grande Planning Area, Bureau of Land Management (BLM), Las Cruces, New Mexico

In response to your recent request, the Southwest regional office has reviewed the subject draft environmental impact statement (EIS). The following comments are offered for your consideration in completing the final statement.

Major Comments

1. Reference page 1-21, Enhancement of Other Resource Values (EORV) Alternative. In the second paragraph of this section the EIS states the following: "At present, BLM manages the grazing on the withdrawn land, but no local memorandum of understanding (MOU) exists which outlines the responsibilities and authorities of the two agencies in this area." There are a number of local memorandums of understanding between the Bureau of Reclamation (Bureau) and BLM, and these are summarized as follows:

a. MOU between the Bureau and the Grazing Service for range administration of lands at Caballo Reservoir, dated April 29, 1941.

11-1 b. Supplemental MOU for administration of grazing privileges on Caballo Reservoir lands, dated October 5, 1942.

c. Supplemental MOU between Reclamation and BLM for administration of grazing privileges on Elephant Butte Reservoir, approved May 6, 1949 (dated June 1, 1948).

d. Letter of October 24, 1952, to Regional Administrator, BLM, Albuquerque, New Mexico, from Project Manager, Rio Grande Project, listing revised summary of acquired and withdrawn lands at Caballo Reservoir for BLM administration of grazing privileges.

e. Supplemental MOU No. 2 between Reclamation and BLM for administration of grazing on acquired and withdrawn lands at Elephant Butte Reservoir, dated July 17, 1964.

11-1 The existing MOUs referred to do not clearly outline authorities of the two agencies. A new MOU is under consideration at the national level. Following approval of this MOU, a MOU at the local level will be negotiated.

In section 14, Implementation, of the March 2, 1972, Departmental Memorandum of Agreement between the Bureau and the BLM, it states that "This agreement shall supersede all agreements heretofore existing between Reclamation and Land Management which are inconsistent with the purpose of this agreement."

11-1 cont. Apparently BLM believes that present local MOU's are not specific enough in terms of defining each agency's authorities and responsibilities. In this light and considering the Bureau's plans to develop a multiple-use management plan for Elephant Butte and Caballo Reservoirs, it would be appropriate for both agencies to negotiate a new MOU for BLM's administration of grazing on Reclamation lands.

2. Reference page xi, second paragraph, and other sections of the EIS. The proposed monitoring studies are appropriate and long needed in resource management. Here, under terms of a MOU between the Bureau and the BLM, the two agencies could possibly cooperate on the monitoring of vegetative and other resources at Elephant Butte and Caballo Reservoirs.

11-2 3. With reference to Visual A, Land Status and Allotment Boundaries, Reclamation is concerned over the designation of a number of areas as being Water and Power Resources Service (now Bureau of Reclamation) lands. Reclamation does not manage such designated lands (indicated in red on the visual) located in T. 17 and 18 S., R. 4 W.; T. 18 S., R. 5 W.; T. 18 and 19 S., R. 3 W.; and T. 22 S., R. 1 E. Excluding the Leasburg Diversion Dam Reservation, Reclamation does not manage the three smaller areas designated in T. 21 S., R. 1 W.

Since there appears to be a difference of over 4,000 acres in Reclamation land ownership indicated by BLM and currently recognized and managed by Reclamation, it would be appropriate for the two agencies to compare records for the purpose of reconciling the discrepancy. This initially could be done at the local level between the Rio Grande Project office and BLM's Las Cruces District office.

11-3 4. In all cases where BLM proposes range improvements and changes in active management on Reclamation lands, BLM should present such proposals to Reclamation for review and approval prior to implementation.

Secondary Comments

Page 1-1, paragraph 2: To assist in further review of the EIS, Reclamation needs to know the acreage of Reclamation land (withdrawn and acquired) included in the Southern Rio Grande Planning Area.

Page 1-4, paragraph 1 under Amount of Vegetation Allocated to Grazing and Other Uses: It is understood that the 5-year average is somewhat arbitrary and convenient for use in the whole planning area, but such an average may not be appropriate on Reclamation lands which have undergone heavy grazing pressures as recognized by the EIS.

11-2 This change is noted in the Errata Section, p. 89.

11-3 This is stated on page 1-26 of the DEIS.

11-4 Page 1-23, Table 1-5: Reclamation is in need of additional information to permit a full review of the fencing aspect of the EORV alternative. Where would the proposed fencing be located on Reclamation lands? Other than fencing that crosses the flood plains, will the proposed fencing conform to the edge of the flood plains, the conservation pool elevation of each reservoir, or Reclamation's reservation boundary at each reservoir?

11-5 Page 1-26, Water and Power Resources Service: Change name to Bureau of Reclamation. Reclamation agrees with the statements in this section and wishes to stress that all proposed developments on Reclamation's lands will require review and approval by Reclamation prior to construction.

11-6 Page 2-4 and reference to appendix B-4: In appendix B-4, it mentions that quality and quantity of forage were used in determining forage value class. The quality of forage is discussed, with a classification of plant species into categories, and composition is mentioned for the three forage value conditions. The aspect of quantity is not discussed in detail. Is quantity a synonym for composition? Is the amount of vegetative cover per pasture taken into account?

11-7 Pages 2-9 and 2-13 and elsewhere: For additional clarity of the plant species being discussed, a list of common and scientific names should be offered in the appendixes.

11-8 Page 2-19, table 2-8: From the discussion on sampling (16 SWAS) the riparian habitat, it would appear that more sampling is required to improve the reliability of data presented in table 2-8. We suggest adding a discussion on the adequacy of sampling, appropriate sample size, and confidence level used in sample size determination, etc. With reference to table data, it would appear that the plant diversity index for the pseudoriparian habitat should read .0730, not .730.

11-9 Page 2-22, table 2-9: It would be helpful if definitions of riparian forest and riparian woodland were provided. Why are these separated? Olivaceous cormorant nesting habitat is in live trees or possibly snags that are emersed during the breeding season.

11-10 Page 2-30, Water Resources, Surface Water: The present storage capacity (based on a 1980 sedimentation survey) of Elephant Butte Reservoir is 2,222,620 acre-feet. Allocation of waters stored in Elephant Butte and Caballo Reservoirs is governed by the Rio Grande Compact, a 1906 treaty with the Republic of Mexico, and contracts with the Elephant Butte Irrigation District, New Mexico, and the El Paso County Water Improvement District No. 1, Texas.

Page 2-41, National Register of Historic Places: Caballo Dam should be added to the Sierra County list of sites on the National Register of Historical Places.

11-4 See response to 11-3.

11-5 This correction has been made in the list of Errata, FEIS p. 89.

11-6 Quantity is not a synonym for composition. However, composition expresses in percentages that amount of the total vegetative production from each different plant species growing on a specific site. The total vegetative production on a per acre basis was not used as a criteria for determining forage value class. Quantity as used for this purpose was an expression of the percentage of the total vegetative production made up by each individual species which had previously been categorized as desirable, intermediate, or least desirable based on palatability.

11-7 This change is noted in the Errata section, p. 90.

11-8 We do not have statistically sound data due to inadequate sample size. However, this does not significantly affect the analysis due to the relatively small amount of fair and good condition riparian areas. The change in the plant diversity index for pseudoriparian habitat is noted in the Errata section, p. 90.

11-9 The riparian forest and riparian woodland were divisions used by one of the sources listed on the table and are not used elsewhere, as now noted on the bottom of the table. The source, Amer. Ag., used these divisions of riparian habitats to reduce variability and defines them as: Riparian Forest, cottonwood-walnut association; and Riparian Deciduous Woodland, mesquite-seepwillow-salt cedar-willow association.

11-10 See revised DEIS, p. 2-30 (FEIS, p. 102).

Map 2-7, Visual Resource Management (VRM) Classes and Areas of Critical Environmental Concern (ACEC's), following page 2-44: Pending further study and development of a management plan for the reservoirs, Reclamation will withhold comment on VRM classes assigned to the two Reclamation reservoirs, especially the Class II VRM for Caballo Reservoir.

11-11 Page 3-14, sixth full paragraph: The increase in litter, acting as a mulch, might also aid in the establishment of more vegetation, resulting again in an increase in fuel for fires.

11-12 Page 3-15, second sentence: Plant species which are most susceptible to fire should be identified.

11-13 Page 3-32, Riparian paragraph: On Reclamation lands, the proposed "monitoring program" should be conducted in cooperation with Reclamation. Reclamation feels intensive monitoring is most important to the future management of the reservoir flood plains, and such cooperation might be handled under the proposed MOU.

Page 3-32, last paragraph: This statement may well prove true, but the major limiting factor for doves at the two reservoirs is probably food, since dove populations in the Sierra-Dona Ana County areas of New Mexico have been highest in areas of cultivated crops, which are generally lacking at the reservoirs. See Avifauna Census, Elephant Butte and Caballo Reservoirs, New Mexico, Final Report, June 1980 by R.J. Raitt and M.C. Delesantro (USBR Contract No. 9-07-54-V0507) and "Seasoned Food Use by Mourning Doves in the Mesilla Valley, Southcentral New Mexico" by Davis and Anderson (N. Mex. Agri. Exp. Sta. Bull. 612).

Page 3-47, Threatened or Endangered Species: Olivaceous cormorants have a habitat preference for vegetation, especially large willows, emersed in water. So increased trees and understory shrubs would not alone increase habitat for cormorants. With availability of other forage plant species on the flood plains, livestock do not graze saltcedar sufficiently to effect even minor control. Reclamation doubts biological control of saltcedar via livestock is practical on the flood plains of Caballo and Elephant Butte Reservoirs.

11-14 Page D-7, appendix D-1 continued: We suggest adding the smallmouth bass and the threadfin shad to the list of fishes.

11-15 Pages E-20 through E-30, Proposed Livestock Rangeland Improvements: To properly review the rangeland improvement proposals, Reclamation needs to know the intended location of such proposals designated for Reclamation lands.

11-16 Page E-31, appendix E-6: The proposed use of any pesticide, particularly herbicides as mentioned in the EIS under the maximization of livestock forage production alternative, on Bureau-administered lands or the potential drift (applications adjacent to Reclamation boundary) of pesticides onto such lands should be reviewed and approved by Reclamation prior to application.

11-11 Table 3-5, page 3-16 shows the projected increase in production of the desirable and intermediate forage species. Desirable and intermediate forage species are also the primary litter producing plants and if ungrazed this growth soon changes to the litter classification. The point being made was that lack of grazing increases fine fuels for fires.

11-12 See revised DEIS p. 3-15 (FEIS, p. 108).

11-13 Refer to DEIS p. 1-26 and Appendix A, which indicate that coordination between the agencies would occur during program implementation.

11-14 The change has been noted in the Errata section, p. 92.

11-15 See response to comment 11-13.

11-16 See response to comment 11-13.

11-17 Appendix E-6, Guidelines for Vegetation Treatments: References to the use of "a certified applicator" or "a valid herbicide application certificate" were made. No mention was made as to what authorized agency would issue such certifications. Would BLM personnel supervising herbicide applications be required to obtain a public applicator license from the New Mexico Department of Agriculture, or does the BLM issue its own certificates of qualification?

11-18 Page E-33 under Section 7: References to the restricted use of herbicides around livestock watering areas do not appear to be consistent. In the first sentence, a 1,500-foot buffer for livestock watering locations is indicated. In the following sentence, the text indicates that no foliar herbicide is to be applied within 100 yards of livestock watering ponds or tanks. The buffer restrictions for herbicide application in the vicinity of livestock and wildlife watering areas need to be clarified.

We appreciate the opportunity to assist in reviewing the subject document. Should you have further questions regarding our comments, please contact Mr. Tom Shrader of our Rio Grande Project office, El Paso, Texas, telephone (915) 543-7747 or FTS 572-7747.

Robert H. Weiner

11-17 The New Mexico Department of Agriculture has the authority to certify applicators. The BLM could only use applicators who have been certified by them.

11-18 See revised DEIS p. E-33 (FEIS p. 127).

12

Wildlife Management Institute

709 Wire Building, 1000 Vermont Ave., N.W., Washington, D.C. 20005 • 202 / 347-1774

DANIEL A. POOLE
President
L. R. JAHN
Vice-President
L. L. WILLIAMSON
Secretary
JACK S. PARKER
Board Chairman

July 14, 1981

Mr. Ed Webb
EIS Team Leader
Las Cruces District Office
Bureau of Land Management
Post Office Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Webb:

The Wildlife Management Institute is pleased to comment on DRAFT GRAZING ENVIRONMENTAL IMPACT STATEMENT, SOUTHERN RIO GRANDE PLANNING AREA, New Mexico.

12-1 This plan is difficult to evaluate. Range improvements are listed and grazing plans are mentioned. These plans will be developed after monitoring the initial reductions. No detail is presented on rest-rotation, season, or other customary range management methods. We do not understand how BLM can be so precise on improvements and so vague on grazing control and systems. Stocking rates are to be held open until consultation with operators. All in all, we fail to see assurances of receiving wildlife AUM's with such an open ended plan for cattle (p. 3-5).

We prefer the riparian management system of the Enhancement of Other Resource Values alternative. Page 3-23 states that the preferred alternative will not improve riparian systems unless the management regime of chapter 1 is adopted. The only management outlined in chapter 1 is in the enhancement alternative on p. 1-23.

12-2 A clearer and earlier statement on the relations of BLM and the New Mexico Game and Fish Department is needed on the development of optimum numbers, and on the status of the Department's plans and their relation with this plan (p. 2-24, 3-39).

12-3 What is intensive management as discussed on p. ix?

12-4 The statements on p. 3-48 from the Arizona Interagency Committee should be expanded and featured. If this view of year-long grazing is correct, then it is a major factor in this plan.

12-1 Following the publication of the Final EIS, the proposed Rangeland Program Summary (RPS) which is the decision document that outlines the proposed initial livestock stocking rate on each allotment will be written. This RPS will be sent to all on the EIS mailing list. Comments on the proposed RPS will be accepted and be used in writing the Final RPS which will be completed about October 1982. The Final RPS will be sent to all on the EIS mailing list and everyone affected by the decisions will have the right to appeal.

12-2 The relationship between BLM and the New Mexico Department of Game and Fish (NMDG&F) is explained in Chapter 1, p. 1-27. The optimum numbers were jointly developed using historical population data and a potential for habitat improvement. These numbers are directly related to the State Comprehensive Plan, Operation Plan Part II, Management of New Mexico Wildlife 1981-1985, a Sikes Act Comprehensive Plan, signed by officials of NMDG&F, BLM, and the USDA Forest Service.

12-3 See revised DEIS p. 1-5 (FEIS p. 98) for an explanation of intensive management.

12-4 The concept of yearlong grazing is discussed further in the second paragraph on page 3-50, where it is noted that rangeland literature and study reviews do not show any clear concensus that livestock are more productive under grazing systems than when allowed under yearlong grazing.

The paragraph preceding the Arizona Interagency Range Committee quote specifically states the positive and negative attributes of yearlong grazing.

Certainly yearlong grazing is a major viable grazing alternative on southwestern desert-shrub rangelands under proper stocking rates, and this is well established on page 3-50 as a comparison with grazing systems.

12-5 Everything in this plan depends on monitoring (p. 3-2), yet p. 1-13 says it is absolutely dependent on the budget process. We have no confidence that BLM will be able to monitor adequately in the long run. Hanging everything, including development of grazing systems, on monitoring is akin to living on the brink of disaster.

12-6 We found no mention of trespass control or the scope of the trespass problem.

We object to the disclaimer allowing the decision maker to combine portions of other alternatives in a grazing decision--after the final EIS. If done, it will negate the public participation portion of this EIS and allow no public review of the final plan.

These remarks have been coordinated with William B. Morse, the Institute's Western Representative.

Sincerely,

Daniel A. Poole
President

DAP:lbb

12-5 We must make assumptions in determining the impacts of the Proposed Action and Alternatives. The assumption, found on page 3-2 states "The BLM would have funds and manpower to implement the proposal or any alternative selected."

12-6 Trespass will be handled as at present. Trespass control will be much more effective due to the monitoring procedures found on page 1-14.

13

United States Department of Agriculture | Soil Conservation Service | Box 2007, Albuquerque, NM 87103

July 16, 1981

Mr. Ed Webb
EIS Team Leader
BLM - Las Cruces District Office
P.O. Box 1420
Las Cruces, NM 88004

Dear Mr. Webb:

The draft EIS "Grazing Management in the Southern Rio Grande Planning Area," which was received June 5, 1981, has been reviewed by staff members.

We find that the overall statement represents good basic resource data gathering and presentation methodologies. The range site and condition information, and its use in arriving at management response levels is excellent. Although the anticipated forage responses to levels of management is largely speculative, the basis is sound.

There are a number of specific comments:

13-1 Chapter 1 - Interrelationships - Federal Programs, page 1-25 presents information about SCS assistance programs which we feel is not accurate. The statement "the primary objective of those ranch plans is to determine the vegetation utilization on the state and private lands" is misleading. We would prefer to have the final EIS statement indicate that the primary objective of the plans is to achieve the landowners' soil and water conservation objectives.

We also feel that the statement on coordinated planning between BLM and SCS should be strengthened by changing "desirable" to "essential." We fully support coordinated planning as the most satisfactory planning method to assist the land operator.

13-2 Introduction - Environmental Consequences of the Proposed Action - Statements are made that sediment yield and runoff would be reduced, depending upon some site characteristics. Information later presented on 3-55 and in Table 2-4 for runoff and on 3-27 and Table 3-11 for soils indicates that these reductions would occur only on certain range sites and/or on grassy watersheds. We suggest that the final EIS should restate this summary type information in a more quantitative way - possibly by expressing the reductions occurring as a certain percentage of the total land within the planning area.

13-1 See revised DEIS p. 1-25 (FEIS p. 99).

13-2 See revised DEIS p. 3-27 (FEIS p. 109).

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13-3 Chapter 3 - Environmental Consequences - Discussions of specific environmental effects of the proposed chemical vegetative treatments is sparse and sometimes misleading. For example, there is a guild of mesquite nesting birds (Bird Populations in a Shrub-Grassland Area; Southeastern New Mexico; Davis, Sawyer, Griffing, Borden; 1974, NMSU Ag Exp Bull 619) which would be eliminated as breeding populations by mesquite spraying. The draft indicates that the "mesquite sand dune type" would receive most of the chemical treatment on about 40,000 acres. However the analysis of effects (pg. 3-38) for mesquite sand dunes type states that summer bird diversity would increase.

We also feel that information presented in Chapters 2 and 3 clearly indicates the high values of both the riparian and pseudoriparian types to a diverse fauna. It is also stated that without site specific menagement plans, these types will continue to receive heavy use by livestock. Since no specific and pseudoriparian type plans for fencing, or other management of riparian are called for in the PA, we suggest that additional consideration be given to the protection and planned improvement of these types.

We appreciate the opportunity of reviewing this proposed action.

Sincerely,

Ray Margo, Jr.
State Conservationist

cc:
Norm Berg, Chief, SCS, Washington, DC

13-3 Please refer to p. 3-6, 7th paragraph, where the expected kill rate on brush species is stated to be 40-50 percent. The publication mentioned in the comment was reviewed during preparation of the DEIS. Some groups of vertebrates may be numerically reduced for a short period following chemical treatments; there is conflicting information concerning those short-term reductions. From available data, we expect the effects of brush control to be as stated in the DEIS after the first year or two following chemical treatments.

July 13, 1981

Mr. Ed Webb, EIS Team Leader
8LM - Las Cruces District Office
P.O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Webb:

I have been asked by the Mayor to review and offer comments on the Environmental Impact Statement you sent to his office. We have studied the draft Grazing Environmental Impact Statement for the Southern Rio Grande Planning Area and we have no adverse comments to offer.

The City of El Paso has, as other parts of the region, severe blowing dust storms which usually occur during the early spring of each year. For some time we have considered the possibilities of generating an interest in a "revegetation" program for the lands between the Rio Grande and the West Potrillo Mountains. We would like to suggest that the Bureau of Land Management consider several experimental projects to determine the possibilities of producing a drip irrigation tree growth area using several types of trees which may serve as wind breaks as well as shade area and perhaps edible bearing crops. Range grass may be reestablished in areas that were once over-grazed by using well water for irrigation. 8y so doing, there may be the possibilities of producing money making crops, reducing blowing dust and creating a better environment for animal and other forms of wild life.

Thank you very much for allowing us to review your draft Grazing Environmental Impact Statement.

Cordially yours,

William H. Adams

William H. Adams
Assistant Director of Planning, Research
and Development
2 Civic Center Plaza - 8th Floor
El Paso, Texas 79999

WHA/fk

EL PASO WATER UTILITIES
PUBLIC SERVICE BOARD
320 SOUTH CAMPBELL ST. • P.O. BOX 511 • EL PASO, TEXAS 79961 • PH. 915/533-9701

July 20, 1981

Mr. Ed Webb
Bureau of Land Management
Las Cruces District Office
Post Office Box 1420
Las Cruces, New Mexico 88001

RE: DEIS, Grazing Management in the Southern Rio Grande Planning Area

Dear Mr. Webb:

Please be advised that the City of El Paso proposes to develop a well field and pipeline system in the La Mesa Area over the next several decades. We request that you coordinate with us with respect to any water-related improvements in the following allotments: 3003; 3020; 3022; 3023; 3038; 3046; 5001; 5010.

The purpose of such coordination would be to avoid well interference or other conflicts between BLM and El Paso wells. Moreover, if timing is appropriate, we are prepared to discuss BLM's use of our well and pipeline facilities in lieu of construction of separate facilities. Based on Appendix E-4 of the DEIS, we foresee that such co-use could save the Government $200,000 or more in the cost of wells and pipelines.

Sincerely,

John T. Hickerson
General Manager

cfc

NEW MEXICO ARCHEOLOGICAL COUNCIL, INC.

PO 2087
Santa Fe, New Mexico 87503

21 July 1981

Mr. Daniel C. B. Rathbun
District Manager
Las Cruces District
Bureau of Land Management
PO Box 1420
Las Cruces, New Mexico 88001

Dear Mr. Rathbun:

I have reviewed the pertinent sections and discussion of the *Draft Grazing Environmental Impact Statement, Southern Rio Grande Planning Area* (May 1981), issued by the Las Cruces District, Bureau of Land Management. The following comments are directed to those statements concerning the PA on cultural resources within the Southern Rio Grande Planning Area.

First, I am concerned that there is no discussion of alternatives to the lack of Class II surveys for the planning area. The statement in Mr. Rathbun's letter to Mr. Merlan of Feb. 1981 (H-1) that the Las Cruces District has requested funding for better than ½ million acres, which "would give the Las Cruces District Class II coverage of all its lands," is misleading. Class II survey is a sampling strategy which allows prediction of site density and distribution; it does not provide "coverage" of the lands involved, which is the purpose of Class III survey prior to the initiation of land-disturbing activities. The possibility that funding may not be allocated for such an undertaking (Class II survey) is very real under present government funding cutbacks. If such funds are not available prior to implementation of the PA "following filing of the final EIS," in September 1981), the only alternative implied, other than No Action alternative, is Class III survey.

Even if such monies were allocated, there is no time between their availability and initiation of the action to carry out such a sample survey. As a consequence, the cultural resource data base must, once again, be accumulated piecemeal as a result of Class III, project specific surveys. Such an approach precludes meaningful CRM planning and implementation. I concur with Mr. Merlan's concern (pp. H-3, 4) for a regional framework from which CRM planning and implementation are most effectively handled. Regional planning is an effort

to insure that cultural resources are not casually destroyed, as well as an effort to avoid protecting resources that may be expendable. If the former occurs, our relevant data base is destroyed forever; if the latter, archeologists will have their right to make decisions about what is significant in terms of cultural resources taken out of their hands.

If we are to insure that the data base is not casually destroyed, and that expendable portions of that data base are known, a regional research approach must guide CRM planning and implementation. Cultural resources located as a result of project specific surveys at the Class III level will not allow meaningful determination of significance, since sites are not significant except as an aspect of a larger pattern of socio-cultural process through time and space. Such patterns are relevant to changing goals and directions of both academically-oriented and CRM research needs.

16-1 Failure of the Draft EIS to discuss viable alternatives to the lack of Class II survey, the explicit dependence of such survey on funding from a fiscally conservative administration, and the consequent limited focus on the potential data base in the Southern Rio Grande PA resulting from project specific Class III survey, are serious problems that need to be addressed and resolved in the final EIS.

It is recommended that a modified Class II sample survey procedure be undertaken prior to implementation of range improvement activities as listed in Table 3-18 (p. 3-62). Drawing on the data presented in Table 2-15, which correlates known sites in the PA with vegetation types, any number of commonly employed sample strategies could produce adequate data bases from arbitrarily imposed population units containing areas to be affected by rangeland improvements. The amount of acreage estimated in Table 3-18 (10,888), as opposed to ¼ million, would considerably reduce the costs of implementing Class II surveys at this late stage. It seems unnecessary to anticipate funding for better than ¼ million acres to be subjected to Class II survey, when an estimated 10,888 acres are scheduled for potential adverse impact on cultural resources.

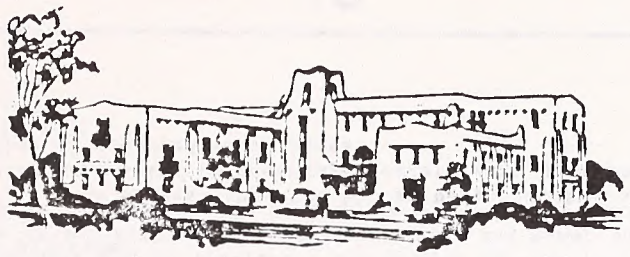
Sincerely,

David H. Snow

David H. Snow
Supervisor
Research Section
Laboratory of Anthropology

16-1 See letters of consultation with State Historic Preservation Officer, Appendix H (FEIS p. 141).

Acting County
Manager
Robert M. Wesel



Dona Ana County
OFFICE OF THE COUNTY MANAGER
ROOM 207, COURTHOUSE PHONE 523-5634
Las Cruces, New Mexico 88001

July 22, 1981

Ed Webb, EIS Team Leader
BLM-Las Cruces District Office
P.O. Box 1420
Las Cruces, NM 88004

Dear Mr. Webb:

The planning staff has reviewed the "Draft Grazing Environmental Impact Statement" and has no comment except to state that the "Elimination of Livestock grazing" (ELG) alternative would not be acceptable for Dona Ana County.

The document is well prepared and we appreciate the opportunity to comment on it.

If there is any future correspondence regarding this matter, please direct it to Mr. Richard Burmister, Room 209 County Courthouse, Las Cruces, NM 88005.

Sincerely,

R M Wesel

Robert M. Wesel
Acting County Manager

18

Dona Ana County Associated Sportsmen, Inc.

P. O. Box 1417 Las Cruces, N. M. 88001

Dedicated to The Conservation of Soils, Forests, Waters, Wildlife, and All Natural Resources

Affiliated with
NEW MEXICO WILDLIFE FEDER

July 21, 1981

Mr. Ed Webb
BLM, Las Cruces District Office
1705 N. Valley Drive
P. O. Box 1420
Las Cruces, New Mexico 88001

Dear Mr. Webb:

Members of our organization, Dona Ana County Associated Sportsman (DACAS) have reviewed your Draft EIS, Southern Rio Grande Planning Area with interest. Overall we find the document thorough and well done. However, we would like to bring to your attention some of our concerns.

Minor corrections include:

18-1 | D-10 - Spring, in a contract
18-2 | D-10 - Odum (1963) not cited in reference section p. R-9
18-3 | D-5 - The black-footed ferret should be included if gray wolf included
18-4 | D-2 - Question the inclusion of the American Woodcock, an eastern species not likely in New Mexico
18-5 | D-2 - Why is Wilson's phalarope last bird first column and Northern phalarope first bird, first column D-3 - (out of place)

18-6 | D-2 - ? European widgeon as verified
? Black vulture verified in New Mexico

18-7 | Major concerns relate to your almost total focus in the wildlife sections on deer and pronghorn (e.g., p. I-1 and I-2, Appendix, etc.) Small game (quail, doves, rabbits provide hundreds of thousands of hunter days and contribute to the economy far more than deer and pronghorn. Furbearers and waterfowl are also important economically and for recreation. Considering only deer and pronghorn undervalues wildlife and their importance. Estimates of other hunting activity can be made from New Mexico Dept. of Game and Fish information.

We endorse the efforts of BLM on p. I-17 (item 14 and 15) to enhance water sources for wildlife and complement you for your emphasis on this important management practice.

On p. I-28 we suggest that the BLM go beyond consultation in regard to state lands by also attempting to encourage better range management practices to improve the condition of depleted state lands.

40

18-1 This correction has been made in the list of Errata, FEIS p. 92.

18-2 This change is noted in the Errata section, p. 93.

18-3 According to Hubbard et al., Handbook of Species Engangered in New Mexico (1979), there are confirmed historical records (pre-1960) of the gray wolf in the Planning Area, but no records for the black-footed ferret. The gray wolf was included in the list on D-5 on the basis of historical records.

18-4 This species, not verified during our inventories, was included on the basis of the "Revised Check-List of the Birds of New Mexico," New Mexico Ornithological Society Publication No. 6 (1978), where the American woodcock is listed as casual in the central-southern area with a collection near Las Cruces in January 1964 in the New Mexico State University collection.

18-5 See revised Appendix D-1 (List of Avian Species That Occur in Southern Rio Grande Planning Area) on FEIS p. 124.

18-6 Hubbard in the New Mexico Ornithological Society Publication No. 6 gives previous, but questionable records, for both species in the state. These two species were reported as verified by a member of the wildlife inventory team. Two black vultures were reported feeding on a dead cow in the mesquite sand dunes habitat type, Border Ranch, summer 1977. The European widgeon was reported on the Rio Grande in the Caballo Planning Unit.

18-7 The estimated increase in hunter days of small game hunters was not discussed in pages I-1 and I-2 of the Appendix because it is not expected that the Proposed Action or any of the alternatives would significantly change the small game populations.

The New Mexico Department of Game and Fish was contacted to provide information concerning importance of small game, waterfowl, and furbearers to the economy of the Planning Area. Their information is being updated and would not be available until after the Final EIS was printed.

Mr. Ed Webb
July 21, 1981
Page 2

On p. I-21 mention is made of 14,629 acres of key riparian habitat of this acreage 13,511 acres is withdrawn by Water and Power Resources service. We strongly urge BLM to develope a memorandum of understanding (MOU) to clarify grazing management responsibility and authority to protect riparian habitat.

Thanks for the opportunity to comment on your Draft EIS.

Sincerely yours,

Sanford D. Schemnitz
President

SDS/lyg

NEW MEXICO FARM and LIVESTOCK BUREAU

TELEPHONE
(505) 526-5521

421 NORTH WATER STREET
LAS CRUCES, NEW MEXICO 88001

July 22, 1981

Las Cruces District Office
Bureau of Land Management
P. O. Box 1420
Las Cruces, New Mexico 88004

Gentlemen:

The New Mexico Farm and Livestock Bureau appreciates the opportunity to comment on the Draft Environmental Impact Statement for the Southern Rio Grande Planning (SRGPA) Area and the Summary of Multiple Use Recommendation For SRGPA.

We are opposed to using any method other than preference in determining initial stocking rate where monitoring of livestock and vegetation, is being conducted to determine proposed carrying capacity adjustments.

With reference to proposed action for the SRGPA, using the five year liscensed average, we would like to point out that presently there are 223,617 AUM's authorized in the planning area. The EIS proposal using the five year average of 192,364 AUM's would result in cuts of 31,253 AUM's. Assuming an average value of $1500.00 CYL, the economic losses to ranching communities, plus the losses in borrowing power and drastic reduction in ranch values would be severe.

The use of the five year average penalizes good ranch managers, who have made a real effort to improve the range lands by removing cattle due to drought or for whatever other reasons.

19-1 On page 1-8, of the Draft EIS, grazing treatments as indicated in the last paragraph are in direct conflict with grazing treatments indicated in appendix 3-10, page 3-31. We refer to Black grama as an example. It is stated that Black grama should be rested throughout the growing season from July to October. The fact is, that Black grama has been shown to do well under continuous year round grazing.

We are concerned with proposed riparian grazing treatments. Every effort should be made to ensure that any deviation from grazing treatments of surrounding resources should be carefully weighed to avoid the creation of an environment that is more costly to manage than the resources being protected.

19-2 On page 1-9, the Draft EIS is "locking in" grazing treatments. Rather than do this, an open attitude should be retained in order to provide for special or different treatments for individual allotments. An example of this would be not to overlook year long grazing in favor of rest rotation.

19-1 See revised DEIS p. 1-8 (FEIS p. 98).

19-2 See revised DEIS p. 1-8 (FEIS p. 98).

Page 2-

19-3 Under chapter two of the Draft EIS, we would like to point out that long range precipitation averages are of little value when evaluating range conditions. Of more importance, is the time of year and amount of precipitation received at any given time, particularly during the July through September growing season. In reporting the effect of climate on production, Norton in appendix B-10 on page 59 indicated that climate will influence vegetation production more than grazing.

We commend the BLM for using the "forage value class" found in the table in appendix B-6, page B-16. The Bureau should be careful to select key species that make up 25% or more of the forage represented in an allotment, in order to prevent management for a species that cannot compete under grazing in the EIS area.

We recommend that the entire section under the heading "Social & Economic Conditions" be deleted. This section is strongly biased against the ranching community and is poorly written. An example, is the last paragraph on page 2-53 and all of page 2-54.

Sincerely,

Walt Greeman

Walt Greeman
Chairman Public Lands Committee
New Mexico Farm and Livestock Bureau

WG:ewc

19-3 See revised DEIS p. 2-2 (FEIS p. 100).

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THE ORIGINAL OF THE FOLLOWING COMMENT WAS NOT REPRODUCIBLE

Comments on EIS

It is stated in EIS on page 2-51 that only very large ranch are operating on a profitable basis. All others have to suppement their ranches with outside income. Why does the BLM keep raising the grazing fee. The fee charged now is a long way from the 5¢ where it started.

If a permit is canceled that ranch should be compemsated for the loss. It may be his life savings.

If the area is just kept for recreation it would be a waste of our resourses. Also there is no revenue from recreation. Who would keep up waters for wild life.

I don't think removing all the cattle is the answer to range improvement. With ample rainfall ranges would improve, if it is not over stocked.

It would not be a great deal of difference whether it is stocked or not. Often times fenced plots are not as good as the area outside.

The ranges have improved since thousands of free roaming horses are not in the area: it is doubtful if it will improve much more with our rain fall pattern.

Most ranchers would try to protect their property to the best of his ability.

/s/ A. R. "Dick" Hille
P. O. Box 683 Las Cruces
88004 New Mexico

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STATE OF NEW MEXICO
OFFICE OF THE GOVERNOR
SANTA FE
87503

BRUCE KING
GOVERNOR

July 15, 1981

Mr. Billy M. Brady, Acting State Director
United States Department of the Interior
Bureau of Land Management
New Mexico State Office
P.O. Box 1449
Santa Fe, NM 87501

Dear Mr. Brady:

Thank you for the copy of the Draft Environmental Impact Statement (DEIS) on the proposed livestock grazing management program for the Southern Rio Grande Planning Area in southwestern New Mexico.

This is to advise you that Dr. William P. Stephens, New Mexico's Secretary of Agriculture, will be submitting comments on my behalf. In addition, I want to thank you for allowing my office to have input on this important document.

Sincerely,

Bruce King

BRUCE KING

cc: William P. Stephens

COMMENTS FROM LAS CRUCES DISTRICT GRAZING ADVISORY BOARD
JULY 21, 1981

22-1 Make Table 1-8 and B-31 consistent. On 1-8, add that this is not an absolute requirement for the survival of the various plants that are listed, but rather represent the ideal situation from a physiological perspective. This does not consider the economics, the management (yearlong vs seasonal), or other factors.

22-2 On page 2-2, need to indicate that these are annual averages and do not take into account other forage producing factors such as timing, season, duration, etc., of the rainfall.

22-3 On 2-53, last paragraph, we are trying to say that many of the families are third and fourth generation families on the various allotments and in the region. It is not correct to imply that the current owner inherited (lock, stock, and barrel) the allotment. We need to change this.

22-4 Also, we need to delete the last sentence in the first paragraph on 2-54. There is no record or knowledge of any "intermarriage", i.e. Smith to Smith.

22-1 See revised DEIS p. 1-8 (FEIS p. 98).

22-2 See revised DEIS p. 2-2 (FEIS p. 100).

22-3 See revised DEIS p. 2-53 (FEIS p. 107).

22-4 This change is noted in the Errata Section, FEIS p. 91.

STATE OF NEW MEXICO

Department of Agriculture

GOVERNOR'S CABINET

BRUCE KING
Governor

Box 3189, NMSU Campus
Las Cruces, New Mexico 88003
Phone: (505) 646-3007

WILLIAM P. STEPHENS
Secretary

July 24, 1981

Mr. Ed Webb, EIS Team Leader
Bureau of Land Management
P.O. Box 1420
Las Cruces, New Mexico 88001

Dear Mr. Webb:

This letter is intended to serve as written comments on the draft Grazing Environmental Impact Statement (EIS) for the Southern Rio Grande Planning Area. We wish to state at the onset, this draft EIS represents a considerable improvement over the documents prepared in the State to date. Although we have concerns with this document, it nevertheless indicates the willingness of the Bureau of Land Management (Bureau) to obtain and consider public input regarding these situations.

This improvement over earlier efforts is especially evident in the aspect that the Bureau is not estimating carrying capacity based on a one point in time range survey. However, it is necessary to reiterate our continuing concern that the basic concepts of data and methodological sufficiency be scrupulously addressed, and that the consultation, cooperation and coordination mechanism for decision-making be fully implemented.

The decisions to be rendered will be predicated on the assumptions, data and conclusions contained in this document. Since these decisions can be expected to have far-reaching and decisive implications for the livestock operators and their communities, it is imperative that such decisions be formulated and implemented only after all comments have been duly considered and all criticisms satisfactorily addressed.

It should be noted that not all assumptions and assertions put forth as fact by the BLM are universally accepted. A case in point is the contention on page 3-2 that "There would be optimum achievement of resource potentials in the long-term with the PA (proposed action). In addition, the PA would be more balanced in achieving the objectives of a grazing management system that would in the long-term meet the demand for livestock forage production, wildlife, and other resource values, both renewable and depletable." This statement is of questionable validity for it fails to recognize the

contributions of the management practices that would be employed by the livestock operators under the so-called no action (NA) alternative. Further, the deterioration of rangeland quality that is presumed to occur under the NA alternative may be overstated.

23-1 The Bureau states (p. 3-5) the management objective is ". . . improving the vegetative resource." If this is the objective of the Bureau, then it is our opinion that ranches with an upward trend should not receive stocking cuts regardless of the past 5-year average stocking rates. The determining factor to obtain the stated objective should be range conditions in terms of its trend and potential, not stocking rates per se. The subject of trend is not addressed in this document. Rather, the apparent assumption is that if the ranch is not stocked at full preference, it should not or cannot be stocked at preference. Will the inconsistency between the stated management objective and the PA be resolved?

A related area deserving attention is the definition of specific factors and actions which constitute "intensive management." Does "intensive management" mean intensively managed areas will be managed as though they were part of an allotment management plan even though they are not so designated by this document? In our opinion "intensive management" is an inherent part of an allotment managment plan and should therefore be amenable to Section 8 consultation, cooperation and coordination under the Public Rangelands Improvement Act (PRIA). The Bureau states in the summary (page ix) "Intensive Management would include consultation with the permittee." It is our recommendation that any area being considered for "intensive management" be entitled to Section 8 type consultation, plus cooperation and coordination so that the manner and degree of management can be jointly developed with the permittee and others identified in PRIA. Will this be the method pursued by the Bureau?

Further caution in prematurely implementing any action is suggested by the disclaimer on page 3-3 regarding the accuracy of certain data wherein it is recognized that "Scientific knowledge is not presently available to assess long-term impacts to the fullest extent. The techniques available for predicting impacts are not precise. . .."

In a letter from the Las Cruces District Manager to permittees/lessees within the area encompassed in the Southern Rio Grande EIS dated March 13, 1981, an explanation as to why the Bureau will not be using the grazing capacity results of the "Soil-Vegetation Inventory Method" (SVIM) in the Southern Rio Grande EIS was provided. Essentially the letter explains the decision was made not to use the SVIM data relative to livestock grazing capacity because of apparent errors in the basic production figures. We commend the District Manager and the Bureau for this action. In part these data lack validity because of the wide and unpredictable variation in the grazing capacity figures on the range sites that are sparsely covered with vegetation and because the data result from a "one point in time" inventory. We do, however,

23-1 See revised DEIS p. 1-8 (FEIS p. 98).

harbor one concern relating to the statement in the letter "As a result, we have decided against using the livestock grazing capacity derived from the production data at this time." We strongly urge the Bureau never to use these data. Does the Bureau plan to ever utilize the SVIM data relative to livestock grazing capacity?

In addition, can it be realistically assumed that the funds and manpower to implement the proposed action would be available? Without the availability of such resources, any reductions in permitted AUM's would simply be punitive gestures since commensurate positive management measures could not be effected.

In the same vein, we would admonish against reducing existing preference on the basis of such tenuous data and questionable assumptions. It should be recognized that examination of a five year period may be insufficient to draw valid conclusions since climatic (precipitation) cycles may last longer than this period. In fact, precipitation totals, as revealed in the New Mexico Agricultural Experiment Station Research Report 350 Climatic Guide, Las Cruces 1851-1976 indicate that upward or downward trends in precipitation can occur for longer than five years at a time. Minimum average precipitation for any five consecutive years since the Taylor Grazing Act of 1934 was 5.25 inches (in 1950-54) while maximum precipitation for any five consecutive years during the same time period was 11.18 inches (1940-44). Surely, should either of these trends occur during the monitoring process, data gathered would reveal only short term results and not solid information for long-term management.

Another aspect for consideration pertains to existing preference levels that affect the wealth position and financial flexibility of ranch operators, and the requisite flexibility to properly manage their ranching operations. We strongly recommend the retention of existing preference levels, seeking adjustment, if required, in actual use levels.

The Bureau regards monitoring as an integral component of a management process, but the manifestation and extent of such monitoring should be judiciously considered. At what point does monitoring transcend efficacy to become superfluous, extraneous, and counterproductive? Monitoring of physical range conditions should be site and purpose specific, and should be closely coordinated with the affected operator. All needless monitoring should be curtailed.

23-2 In this regard, Wildlife Habitat Areas (WHA's) have not been designated in the Planning Area (p. 1-9) and the Bureau indicates that wildlife habitat will be designated as WHA's during the planning process. What planning process is being referred to and will public input be obtained by the Bureau regarding specific provisions for management and monitoring?

The Bureau also states (p. 3-32) that "...improvement is unlikely to occur in riparian habitats under the PA unless the grazing treatment... is adopted and specific monitoring and management design for each site is carefully and

23-2 If the need arises, WHAs would be designated. Public input would have an affect on designation of WHAs. The Bureau Planning System is the BLM's process of developing multiple use management plans and does include public input.

adequately planned." If the grazing treatment is insufficient to provide improvement, then monitoring the situation probably will not cause an improvement either. Therefore, we recommend neither be implemented without further explanation.

To summarize our general comments, we believe the reductions discussed in this document would cause significant and perhaps devastating economic hardships on individual livestock operators and their communities depending upon the severity of reductions. We believe reductions in AUM's should be reconsidered in light of rancher initiated range management practices. If livestock operators are not to be severely impaired, the financial and management flexibility provided by existing preference must be maintained. Preference should not be altered.

In terms of comments of a more specific nature, your attention is drawn to the following specific factors which should be addresed in the final EIS.

The approach the Bureau takes in identifying key vegetative species for monitoring purposes can have a significant impact on the assessment of range conditions and the allowable stocking rates. For example, if all of the vegetation in a pasture will support 100 AUM's but the identified key species represents only 10 AUM's, will stocking rates be based upon utilization of the identified key species?

23-3 The section on Support Facilities in the Description of the Proposed Action (PA) (p. 1-9) seems contradictory. The Bureau states "Since specific grazing systems have not been designed for each allotment, a comprehensive list of rangeland improvement projects is not available." However, the Bureau also states "The rangeland improvements proposed for the Planning Area under the PA include 14 dirt tanks, 173 miles of pipeline, 177 drinking troughs, drilling or equipping 40 wells,..., 7 cattleguards, 34 storage tanks, 1 spring, and 256 miles of fence." These improvements are itemized in Appendix E-4 by allotment "...for analysis purposes." Contrary to the first quote it appears the Bureau has considered grazing systems for these allotments, and the list, while perhaps not "comprehensive," certainly appears complete.

23-4 The Bureau recognizes rodent activity as a cause of brush invasion (p. 1-10). However, there is no mention of rodent control for rangeland improvement/reclamation. The literature (Wood 1979 and Moroka 1979) is quite explicit in assessment of rodent damage to rangeland. Since there are mechanisms in place to address rodent control on Bureau administered lands, we recommend the availability and feasibility of rodent control be addressed.

23-5 Brush control via either chemical or mechanical methods is important and highly needed in some areas. The Bureau is to be complimented for addressing the situation. However, when chemical control is to be undertaken, all laws and regulations must be complied with to avoid adverse environmental consequences. The proposed treatments are not entirely within these laws and

23-3 The list of proposed improvements is only an estimate to the best of our knowledge at this time. The improvements were estimated on an allotment by allotment basis. AMPs and grazing systems have not been developed.

23-4 The availability of rodent control is addressed on p. 1-25, interrelationships with the U.S. Fish and Wildlife Service. Feasibility would be determined during the request evaluation process.

23-5 On page 1-28, it is stated that close cooperation between the New Mexico State Department of Agriculture and the BLM would be necessary to ensure compliance with New Mexico State laws prior to the use of any herbicides. On page 1-10, it is stated Dowco 290 has not been approved. If it is not approved for use in New Mexico prior to the proposed treatments, it will not be used.

23-5 cont. regulations. For example, Dowco 290 is not registered for use within New Mexico. Without registration information it is impossible to assess its consequences. The use of this product without state registration is illegal.

23-6 The rates of application for Graslan suggested by the Bureau for creosote and mesquite are below the manufacturer's suggested rates of application. If the product were applied at the manufacturers suggested rates (1/2 - 1 lb AI/Ac and 2 to 4 lbs. AI/Ac respectively) the percent kill of brush species could increase from the Bureau's expected 40 to 50 percent to 80 to 90 percent. There would also be a theoretical increase in available vegetation from the proposed 2 to 3 times the current level to 4 to 6 times, the amount currently available. Why does the Bureau recommend use of the reduced application rate?

In regard to an increase in grazing preference the Bureau states (p. 1-14) "...increased grazing use would be authorized as temporary increase until monitoring studies confirm the increase on a sustained basis. After increased forage for livestock has been confirmed, the increase may be added to the permittee's active preference." How long a period of time is necessary to confirm an increase in forage? Also, does the phrase "...increased forage for livestock..." indicate that increased forage will not necessarily be allocated to livestock? We would appreciate clarification of these statements.

We appreciate this opportunity to comment on the draft Southern Rio Grande EIS and we hope the comments offered here will be accepted in the spirit in which they are intended -- as constructive critique. We request the Bureau to analyze and consider the various comments in preparing the final document.

Sincerely,

William P. Stephens

WPS'rw

Enclosure: Literature cited

23-6 Graslan would be used primarily on creosote as it has proved to be effective on creosote at a low rate of application. The target kill on brush species is 40 to 50 percent.

LITERATURE CITED

Moroka, Daniel Neo. 1979, Impact of Burrowing Activities of the Banner-tailed Kangaroo Rat on Southern New Mexico Desert Rangelands. MS Thesis, New Mexico State University, Las Cruces, NM.

Wood, John E. 1969. Rodent Populations and Their Impact on Desert Rangelands. New Mexico State University Agricultural Experiment Station Bulletin, New Mexico State University, Las Cruces, NM.

DEPARTMENT OF THE ARMY
US ARMY WHITE SANDS MISSILE RANGE
WHITE SANDS MISSILE RANGE, NEW MEXICO 88002

Mr. A.N. Johnson/aes/678-2224

STEWS-FE

24 July 1981

Mr. Daniel C. B. Rathbun
District Manager
Las Cruces District
Bureau of Land Management
P.O. Box 1420
Las Cruces, NM 88001

Dear Mr. Rathbun:

The Draft Environmental Impact Statement (DEIS) on Grazing in the Southern Rio Grande Planning Area has been reviewed as requested in your letter, reference number 1792, dated 10 July 1981. The DEIS is comprehensive and contains useful information which can be of value to us in the management of our resources.

24-1 However, the statement on page 1-26 regarding the Army's policy on cattle grazing on White Sands Missile Range is somewhat inaccurate and incomplete.

As you are aware, White Sands Missile Range (WSMR) is a restricted US Army installation with the mission of testing and evaluating missile systems, rockets and other materiel for the Department of Defense. For security and safety reasons, entry into the range is prohibited to everyone except personnel who have official business on WSMR. Arrangements can be made for BLM personnel to enter the range under escort during periods that do not conflict with military activities for the purpose of observing cattle that have strayed from the lands contiguous to WSMR.

The need for exclusive military use made it necessary to remove all livestock from the missile range. Cattle that have strayed from lands outside the boundary have been gathered and driven off the range numerous times. It is the intention of WSMR to control livestock straying into the range by construction of additional boundary fencing. We have programmed a military construction project to construct the fence. Livestock grazing operations were suspended from all of the missile range, except within the Jornada Experimental Range, when the lands were originally withdrawn. A co-use arrangement authorizing grazing within WSMR would interfere with operation of the range mission. Access for individuals to provide the necessary care for livestock would cause cancellation of missions resulting in the loss valuable range time. This type of entry would interfere with the military research and development programs, resulting in delays in schedules and effect a severe monetary loss to the government.

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24-1 Apparently there are some misunderstandings between the BLM and U.S. Army concerning the White Sands Missile Range. These will be resolved by meetings between the two agencies.

24

STEWS-FE 24 July 1981
Mr. Daniel C. B. Rathbun

Thank you for the opportunity to review and comment on the DEIS. We look forward to seeing our comments included in the final EIS.

Sincerely,

VERNON E. EBERT
Colonel, GS
Chief of Staff

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COOPERATIVE EXTENSION SERVICE

NEW MEXICO STATE UNIVERSITY

BOX 3AE, LAS CRUCES, NEW MEXICO 88003
COLLEGE OF AGRICULTURE AND HOME ECONOMICS

July 24, 1981

Mr. Ed Webb
Bureau of Land Management
1705 North Valley Drive
P. O. Box 1420
Las Cruces, New Mexico 88001

Dear Mr. Webb:

We appreciate the opportunity to comment on the Southern Rio Grande Grazing Environmental Statement. The Bureau is to be commended on their attempt to survey, record and complete the Environmental Statement in the time period that was available. It is evident that much effort has been invested in the preparation of this statement.

The following comments were prepared by the Range Improvement Task Force at New Mexico State University. The Task Force is an interdisciplinary team of specialists in Range Ecology, Range Brush and Weed Control, Wildlife and Economics. Additional inputs were received and incorporated in the statement from faculty members of the New Mexico State University College of Agriculture.

The comments are intended to be directed at the processes and methods in the draft statement, and are not directed toward any one individual or individuals within the Bureau of Land Management. When individuals or an organization expend as much effort and time in a project such as this Environmental Statement, any criticism of the statement many times is confused with criticism of an individual or organization. We trust that these comments will be received in the light of addressing the process and not be taken personally by anyone within the Bureau of Land Management.

Respectfully,

Jerry G. Schickedanz, Coordinator
Range Improvement Task Force

dts

Enclosure

cc: Advisory Board, Range Improvement Task Force

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25

AN ANALYSIS OF
THE SOUTHERN RIO GRANDE EIS AREA, NEW MEXICO

By
Range Improvement Task Force
New Mexico State University

The Southern Rio Grande Draft Grazing Environmental Impact Statement (EIS) represents the most satisfactory effort to date by the BLM in New Mexico to evaluate the proposed grazing management program for an EIS area. While there are shortcomings, as pointed out in the following comments, the BLM is to be commended on their efforts.

The RITF has provided comments previously on the soil-vegetation Inventory Method (letter to Mr. Rennebaum, EIS Team Leader, November 10, 1978, six pages), and there is no need to comment further on this aspect. However, an inventory conducted for a single point in time is still unsatisfactory. The RITF has never endorsed a single point in time inventory to set carrying capacity.

BLM is to be commended for their honest appraisal and decision to not base carrying capacity from SVIM data. Although there were problems with the data, as determined during the analysis phase, we concur that the data are useful for range site descriptions. Use of the current five-year average licensed use in conjunction with information gained through the Section 8 of PL-95-514 New Mexico BLM Rangeland Consultation Policy is a valid and sound approach for determining an initial stocking rate during the monitoring process.

BLM has recognized that present plant communities are not always associated with past or present livestock use. Plant communities are a production of many factors of which livestock is just one.

This type of documentation will allow better interpretation of current land potential and not automatically assume that invader plants are a result of past livestock use.

The brush control treatments should benefit the public lands. Do you have a plan to follow if 2-4,5-T is taken from the restricted list? It would certainly be much more economical than the proposed herbicides of which one is not cleared for use in New Mexico. If the treatments in the PA are successful, then other areas provided in the MLFP should be considered.

We have some concern with the monitoring procedures for allotments. How were the 70 allotments chosen for intensive management? It is not clear in the procedures. Are the 70 allotments and the AMP allotments the only ones to receive monitoring? Monitoring in conjunction with Section 8 Consultation will undoubtedly arrive at a carrying capacity close to actual capacity, but what happens to the allotments that didn't have the privilege of monitoring? For example, allotment #6087 has a five-year average of 668 AUM, preference is 660 AUM and appendix E-2 projects that in the year 2010 the capacity will be 448 AUM. Will this allotment be reduced to 448 AUM's in five years because of the absence of any new data? Has not BLM stated that the SVIM data will not be used to make carrying capacity estimates? We also concur that the SVIM data is not adequate in making carrying capacity estimates. There are also allotments in which the projected AUM's are greater. Will these allotments receive an automatic increase?

25-1

How will the AUM's that are reduced be handled in the interim during monitoring? An RITF study indicates that the suspended pre-

25-1 See revised DEIS p. 1-8 (FEIS p. 98).

55

ference category will reduce ranch values.

25-2 One thing that should be determined during the Section 8 consultation is the reason for the five-year average licensed use. Were the numbers that were reported a result of drought, conservation or economic reasons. The livestock industry was in the down side of a cattle cycle beginning with the market crash of 1974 and hitting the low in 1979. Interpretation of the reductions that were made during the five-year period due to these various reasons should be carefully considered.

Soil Erosion

Although this environmental statement may be an improvement over previous EIS's in context and completeness, there still exists a huge problem with the selection and development of a method to measure or estimate sediment yield. Unfortunately, the justification of the PSIAC method on page C-11 is only a denial of the inherent problems that we have pointed out in previous BLM environmental statements for other parts of New Mexico.

25-3 This EIS says that the PSIAC correlates with measured yields. The McGregor EIS also made this claim and gave the USGS Professional Paper 700D, pp. B245-B249, 1979 as a reference. It should be noted that this study showed a high correlation which is an indication of precision, but the accuracy was very poor, with gross underestimates. The only other research which validates this method was conducted by BLM employees (Clark, Ronnie D., 1980. Use of physical data for estimating sediment yield. Proceedings of Symposium on Watershed Management, Am. Soc. Civil Eng., pp. 836-845). In Mr. Clark's presentation he noted that the gaged area data should be used from nearby reser-

25-2 See revised DEIS p. 1-4 (FEIS p. 96).

25-3 The BLM is aware of the problems when using the PSIAC method for estimating sediment yields. It is, however, the best method available for use on an area as large as the EIS area under the allotted timeframe.

voirs and other sediment trapping devices to check the estimates. Were these area locations and comparisons used in this EIS? If so, why were they not included in the EIS? Mr. Clark also stated that a person making these estimates needs at least five to ten years of experience in using this method to properly predict sediment yields. Did the EIS team for this EIS have someone with this much experience? Unfortunately, when the BLM conducts research to validate methods it uses, a conflict of interest is strongly suspected.

As stated previously to the BLM, dropping the units from your index values would not make the method so offensive. We are suprised at the BLM's continued rejection of the Universal Soil Loss Equation. Although we do not endorse its use in this EIS area, it has been adapted and checked for use in vast areas of natural lands, much more than the PSIAC. Two interesting journal articles for and against the method can be found in the January 1980 and March 1981 issues of the Journal of Range Management. Its development far exceeds that of the PSIAC, regardless of what this EIS claims.

25-3 cont.

The PSIAC method was developed for use in watersheds with a defined boundary and using cover, soil, climate, runoff, slope, land use, upland erosion and channel erosion (Clark, 1980). It was not developed for application by range sites, as range sites do not include all of the above mentioned variables. Therefore, we strongly object to the BLM adapting a poor method and then improperly applying it.

Economics

The Draft Grazing Environmental Impact Statement for the Southern Rio Grande Planning Area is a comprehensive document attempting to

address the complicated problems of resource management and multiple use considerations. The inherent problems, yet alone solutions, are not easily defined. This draft represents an attempt at objectivity. However, there still exist problems related to the social and economic conditions section of Chapter 3.

25-4 The most evident problem is that of a noticeable lack of support data to justify value of herd size changes, off-ranch employment and retained ranch wealth position. Examination of economic support data provided by the Harbridge House did little to clarify the issues. The Input-Output Results table is virtually impossible

25-5 to interpret without additional references. This responsibility for interpretation should not be shouldered wholly by the BLM personnel, but is the joint responsibility of the contracted consultant.

25-6 Input-Output models themselves are subject to question when dealing with a regional economy such as the Southern Rio Grande area, close scrutiny must be made of the location quotients used to adjust the universal model to the specific Rio Grande area.

The paragraph explaining the wealth reduction and loss of flexibility resulting from the potential numbers reduction of the proposed action is fairly accurate with respect to the type of expected impacts.

This is a relatively short statement because there really isn't an adequate amount of data or utilized methodologies presented in the draft to allow a proper analysis to be conducted.

25-7 The proposed cattle number reductions represent a decrease in net income without a corresponding decrease in production costs because of the fixed nature of many of the costs; this will undoubt-

25-4 The economic data regarding the structure of livestock ranching in the Planning Area originated from the Firm Interprise Data System of the Meat Animals Branch, National Economics Division of Economics, Statistics, and Cooperatives Service. This consisted of ranch budgets for 1978 for the Southern Desert Subregion. Based upon unstructured interviews with ranchers in the Planning Area, the budgets were adjusted to reflect ranching conditions in the Planning Area. This budget information is available in a support document at the Las Cruces District Office.

25-5 The input-output model used by Harbridge House, Inc. to estimate the indirect, or regional economic impacts which would result from livestock herd size reductions was an adjusted version of the national model published by the U.S. Department of Commerce, Bureau of Economic Affairs. Location quotients supplied by the U.S. Department of Commerce, Bureau of Economic Analysis, Regional Economics Information System, were used to create multipliers which reflect the specific economic interrelationships found in Dona Ana, Luna, and Sierra Counties.

25-6 The location quotients for the three counties were combined as a weighted average on the basis of employment and applied to the national input-output table. The application of the multipliers to projected direct economic impacts upon the rangeland livestock industry yielded an approximation of business production impacts in terms of gross activity in dollars.

Published data from the Employment Security Commission of New Mexico provided the percentages of sectorial activities which are realized as total and average wages and salaries. This information was used to derive indirect personal income and employment which would be expected to result from a change in business activity in the rangeland livestock production subsector.

edly cause significant adjustment problems among the ranching communities. Even though the ranching industry constitutes only a small portion of the economy of the Southern Rio Grande Planning Area, reducing that sector by 14 percent from preference and potentially 29 percent after monitoring should not be regarded as insignificant.

25-7 cont.

The primary reason for the minimal regional impact is the high depreciation rates and short expected lives of improvements, as well as returns to labor and capital being charged off from the rancher's net income. Calculations of this nature tend to minimize the potential short-run impacts. Will the same procedures be used when the maximum long-run benefits from eventual proposed increases are realized?

25-8

Wildlife

A general concern involves the vegetative treatments. Suitable big game habitat is limited by the amounts of creosote and mesquite rolling uplands in the planning area. By treating these areas chemically, they could be converted to grass rolling uplands, as proposed. In order to maximize benefit to pronghorns, these treated areas should be in or adjacent to existing big game units when possible. Of the 13 areas proposed for vegetative treatment, only two complete areas and parts of two other areas fall within pronghorn herd units. The time and expense required to treat these areas could be more efficiently used if they were located in places where both livestock and wildlife could benefit.

More vegetative treatments would greatly improve range conditions within the planning area. The Proposed Action would be much

25-7 Only when compared with total economic activity at the regional level can the projected economic impacts from the initial proposed forage allocations and estimated worst-case adjustments be considered as insignificant. As stated on page 3-70 in the Draft EIS, "Such a reduction would cut income from ranching significantly, but would not force termination of any operations." The potential estimated impacts, regardless of whether ownership costs are considered, are recognized as being significant within the livestock production industry, but not necessarily within the context of the total regional economy, where the government, trade, and service sectors predominate.

25-8 See revised DEIS p. 2-51 (FEIS p. 105) and DEIS p. 2-52 (FEIS p. 106). Table 2-21 was revised by deleting "Ownership Costs" and substituting "Depreciation". This was done to provide consistency in the analysis. To use "ownership costs" would also require accounting of "ownership benefits" as well. Benefit data are not immediately available. The information for the depreciation line entries is the result of studies conducted by New Mexico State University in 1979 and is felt to be generally representative. However, because of the combination of data from two separate sources, it is not recommended that these figures be reused in other analyses in the future. Table 2-22 has also been revised as a result of changes made in Table 2-21.

more beneficial to wildlife if some of the intensive, large-scale vegetative treatments described in the Maximum Livestock Forage Production Alternative could be incorporated. The increased forage production and the resultant optimum big game populations could be more easily obtained if more emphasis in the Proposed Action were placed on habitat improvement.

Under the environmental consequences of the Proposed Action, it was mentioned that the long-term allocation for wildlife would not provide sufficient forage for optimum big game populations because the analysis did not include considerations such as forage preference or availability. We would suggest that the Proposed Action include some consideration to alleviate this shortcoming, because the allocation may be even more insufficient than indicated. Besides forage preference and availability, other factors will determine the "usability" of the forage. Factors such as adjacent escape cover, proximity to water, human disturbance and interspecific competition may render even more of the allocation unsuable for big game. This should be taken into consideration as much as possible when allocations are made.

25-9

Water developments should be considered for some areas, even though only wildlife would benefit. In many cases, both livestock and wildlife utilize developments but where terrain or location are not conducive to cattle production, water development should still receive emphasis to enhance wildife utilization of the area.

Livestock

A concern that we have is relative to calculating carrying cap-

25-9 The purpose of the DEIS was to analyze the impacts of implementing a grazing management program, including allocations of forage to big game. Factors which would limit the usability of allocated forage by big game were considered in development of the optimum numbers (see the definition of optimum numbers in the glossary, p. GL-7). Specific considerations of the "other factors" were beyond the scope of the DEIS and should be addressed through Habitat Management Plans, where needed. Monitoring (pp. 1-13--1-14) should indicate where problems occur in reaching optimum numbers and lead to corrective action. See revised Summary p. xiii and revised DEIS p. 3-39 (FEIS p. 112) for additional information on big game allocations.

acity on the definition of an Animal Unit found in the Glossary. It is realized that you did not propose to do so in the EIS, but it may be used if further data are not obtained. We have proposed a definition of an Animal Unit based on current research and professional judgement.

Animal Unit - considered to be one mature (1000 lb.) cow or the equivalent based upon average year long daily forage consumption of 20 lbs. dry matter intake. Daily intake will vary depending on size of cow, season of year, forage condition and physiological status of the cow.

25-10 In several of the grazing management EIS's a formula has been used to calculate carrying capacity or suggested carrying capacity based upon pounds of forage required per AUM divided into the total pounds of usable forage. Any time a constant is used in a formula such as this it can have a tremendous impact on carrying capacity; an impact that may be far greater than any mistakes made in an initial collection of data. Thus, great care should be used in any formula such as this. We basically do not feel that any one single intake figure should be used in a formula such as this to determine carrying capacity. We feel that carrying capacity should be set by using a system of range monitoring to determine trend and utilization.

In a recent article published by Rosiere et al. (1980, Journal of Range Management 33:70) the intake for lactating and nonlactating cows (same age) was estimated. These workers showed intakes to be 2.5% for lactating cows and 1.5% for nonlactating cows in June (early lactation). By August, the intake had dropped to 1.7% for lactating and 1.2% for nonlactating cows.

25-10 For determining present grazing capacity, the Proposed Action includes the history of use (past 5 years) and monitoring studies which would reflect livestock grazing capacity through measurements of utilization, actual grazing use, and precipitation. The factor "780 pounds of forage per AUM" was used in projecting the estimated amount of forage that would be available in 2010. It was not used to determine current livestock grazing capacity. As was mentioned on page 4-3 of the DEIS, the 780 pounds of forage per AUM was defined from "A Glossary of Terms Used in Range Management" published by The Society for Range Management. The monitoring studies proposed may modify this figure.

As mentioned earlier, we do not feel that any one figure should be used in such a formula to calculate carrying capacity. But, if one is selected, a figure around 650 pounds to 675 pounds, at the most, per AUM should be used. Intake varies due to the size of the cow, percent calf crop, weaning weight, stage of lactation, etc. Most of the scientific data have been collected on steers or lighter weight animals and a direct percentage intake comparison particularly converting to mature cows cannot be used. This method will overestimate, by quite a bit, the intake. We must consider also the different times of the year or different stage of production for a beef cow. The intake is considerably different when she is dry versus when she is lactating, as shown by Rosiere et al. One also needs to consider the intake of the calf, the size of the calf and again, the percent calf crop is important, because those cows without calves will be dry all year and, thus, their intake will be at a lower level.

We have calculated the year around intake of animals using as a basis the material presented by Cordova and Wallace, Rosiere et al., the NRC, tempered by the experience of personnel at NMSU. These intake calculations considered the different times and stages of production (lactation, dry, etc.). The program takes into account the size of the cow, the number of months that she will be in heavy lactation, the number of months that she will be lactating at a lower rate, as well as the months that she will be dry, or in the last third of gestation. We also calculated the intake of the calf for the period of time calves are run with the cows and the amount of grass they eat during this time, as well as considering a percent

calf crop on the total number of cows and calves. Based on a 1000 pound cow with a 75% calf crop, which would have a weaning weight of 375 pounds, our calculations predict an intake of 656 pounds per month. Allowing for variation (size of cow, calf crop weaning weights, etc.), the intake would probably range from 600 to 675 pounds. This figure or one within the range should be used in lieu of 750 pounds or 1000. The percent calf crop determination is based on the average of a recent survey done by Jim Gray and John Fowler in Southern New Mexico (publication in press).

Specific Page Comments

25-11 Page 2-18, line 31 — Appendix D-3 should be Appendix D-2 (this error made through text).

25-12 Map 2-2 — Pronghorn population on Unit B is 114 minimum, as indicated in aerial survey June 8, 1980.

25-13 Table 2-9 — Gray wolf (Canis lupus) not included but is listed as endangered in Appendix D-1.

Page 2-44, lines 1-14 — Camping/picknicking figures may be inflated due to the inclusion of hunters who camp.

25-14 Page 2-53, lines 26-32 — Because these figures do not include upland game such as quail, dove, coyotes, etc., expenditures and visitor days are underestimated.

25-11 This correction has been made in the list of Errata, FEIS p. 90.

25-12 The average population numbers (100) presented in the DEIS are based on an average over several years, not the high or low of any one year.

25-13 See response to comment 18-3.

25-14 See response to comment 18-7.

25-15	Page 3-37, line 40	As used, this statement is contradictory. If ecological conditions "improve," the bird species should not decline. It would be better to state, "As ecological conditions change..."
25-16	Appendix D-1	List does not include: Oryx (Oryx gazella) Feral horses (Equus caballus) Black-footed ferret (Mustela nigripes)
25-17	Page 4-5	The RITF is affiliated with New Mexico State University, College of Agriculture, not a livestock-related organization.
	Page B-6	The BLM is to be commended to recognize forage value classes for semi-arid regions as something different from ecological condition classes. Also, dropping the soil surface factors within the classification system to which we have objected to many times previously.

25-15 The statement questioned is not presented in the comment in its entirety. The statement is that " . . . bird species reliant on pinyon-juniper canopy habitat would probably decline." This is supported earlier in the first paragraph where it is stated that structural diversity of plant species over 3 feet in height would decline. It is assumed that a decline in canopy diversity would result in a decline in canopy-reliant bird species. "Improve" is used to imply a change toward climax. "Change" does not indicate direction of succession.

25-16 The oryx was introduced on the White Sands Missile Range, not public land in the Planning Area. The New Mexico Department of Game and Fish is removing any animals occurring off the WSMR through hunting or other means. For feral horses, which are not considered by BLM to be wildlife, see o. 1-5, fourth paragraph. See response to comment 18-3 concerning the black-footed ferret.

25-17 See Consultation and Coordination section, FEIS p. 6.

26

United States Department of the Interior

BUREAU OF RECLAMATION
NEW MEXICO RECLAMATION OFFICE
P.O. BOX 252
ALBUQUERQUE, NEW MEXICO 87103

IN REPLY
REFER TO:

July 22, 1981

Mr. Ed Webb, EIS Team Leader
Bureau of Land Management
P.O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Webb:

I have reviewed a copy of BLM's Draft EIS on the Southern Rio Grande Planning Area and have no particular comments.

The opportunity to review this document is appreciated.

Sincerely,

Acting New Mexico Representative

65

27

THE ORIGINAL OF THE FOLLOWING COMMENT WAS NOT REPRODUCIBLE

July 24, 1981

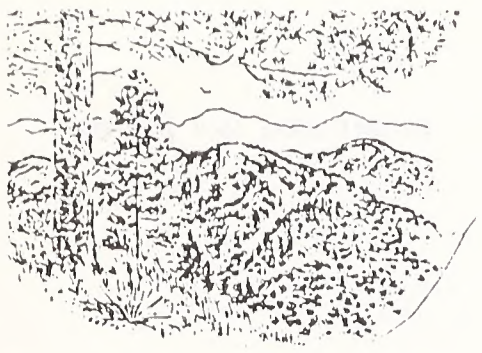
Dear Sirs:

Apoendix E-2, page E-11 6033-Jay Cox, shows an error in the column Acres Other Ownership; 2,839 represents only State Land, deeded land is not represented. There are 8956 acres of deeded lands in this allotment.

More than 50% of allotment 6033, Jay Cox, is deeded land. Change from present total to proposed total AUM's (Appendix E-3, page E-17) is listed as -447 for entire allotment (private, state & federal land). Figures indicated that of this total -447, -115 will be on public land. Appendix E-1 page E-4, states 80.9% of this ranch is in fair condition and 12% is good condition. 74.27% of the total reduction applies to 65.5% deeded land where as only 25.7% of the total reduction aoplies to 34.5% to federal lands. We feel that there are obvious inconsistancies in the data presented because most of the reduction in AUM's is to be absorbed on deeded lands.

Thank you.

Yours truly,
/s/ Jay W. Cox
P. O. Box 77
Winston, N.M. 87943



THE GILA WILDERNESS COMMITTEE

Dedicated to the Preservation of
the Nation's First Wilderness Area

P.O. Box 801
Silver City, NM 88061

7/23/81

Mr. Ed Webb, EIS Team Leader
BLM-LasCruces Office
P.O. Box 1420
Las Cruces, NM 88004

Dear Mr. Webb:

Thank you for opportunity to comment on the Draft Grazing EIS for the Southern Rio Grande Planning area.

We found the documnet to be reasonably readable and informative. Also, we thought that the explanation/discussionnof reserach findings in the text of the document was most useful. It clarified alot of your assumtpions, and I would hope that more EISs by various agencies include this approach.

We favor the "Enhancement of Other Resource Values Alternative" EORV, primarily because it does call for fencing of riparian areas. This is the only alternative(other than ELG) that doesn't continue to treat riparian areas, the most productive of all habitats in the Southwest, as one big"sacrifice" area.

In reading the document, there are various questions that occurred to us:

28-1 -p.xiii How are "optimum" big game populations defined and determined?

-p. 1-13 The statement "The number and frequency of studies per allotment would be determined by the BLM's budgetary constraints." leads one to believe that any effective range improvement program could be abandoned, because of administrative decisions to curtail funds and thus halt the data generation process. Thereby the legitimacy of the whole effort would be undermined. Is this indeed the case? ? ?

28-1 See response to comment 12-2.

It would be advisable to deal in more depth with economic questions. Wouldit be possible to generate cost figures for the various alternatives, so the public knows what it
28-2 is getting for its money? Couldn't sediment yields such as those on 2-16 be translated into cost figures in terms of damages to irrigated agriuclture, municipalities etc.., such as was done in "The Effects of Surface Disturbance on The Salinity of Public Lands in the Upper Colorado Basin" 1977, BLM?

Sincerely,

Bob Langsenkamp
Secretary/Treasurer

28-2 Cost estimates for the various alternatives were included in the draft document. Direct and indirect effects upon the economy of the Planning Area were projected in Chapter 3. Appendix E-4 contains total cost estimates for proposed rangeland improvements listed by allotment number. Tables 1-3 and 1-4 contain cost estimates for proposed vegetation treatments.

PLANNING DIVISION
(STATE CLEARINGHOUSE)
REVIEW CERTIFICATION FORM

MIS 6

STATE PLANNING DIVISION
DEPT. OF FINANCE & ADMINISTRATION
505 DON GASPAR
SANTA FE, NEW MEXICO 87503
(505) 827-2073

TO: Ed Webb, EIS Team Leader
Bureau of Land Management, Las Cruces District

DATE: July ~~22~~ 30, 1981

SUBJECT: ☐ PRELIMINARY REVIEW ☐ STATE/AREA PLAN
☐ FINAL REVIEW ☒ ENVIRONMENTAL IMPACT STATEMENT

PROJECT TITLE: Southern Rio Grande DEIS

APPLICANT: Bureau of Land Management

SAI NUMBER: 81 06 11 013 FEDERAL CATALOG NUMBER: 15 000

FEDERAL AGENCY: BLM

PROPOSED FUNDING (PER 424 FORM) AMOUNT

FEDERAL	$
APPLICANT	
STATE	
LOCAL	
OTHER	
TOTAL	

FOR FINAL APPLICATION ONLY:

REVIEW RESULTS:

__X__ The application is supported.
_____ The application is not in conflict with State, Areawide or Local plans.
_____ Comments are attached for submission with this application.

Lillian D. Orr
LEAD AGENCY REVIEW COORDINATOR

Planning Division
AGENCY

TO THE APPLICANT:

You may now submit your application package, this form and all review comments to the Federal or State Agency(s) from whom action is being requested.

Please notify the Planning Division (Clearinghouse) of any changes in this project. Refer to the SAI number on ALL correspondence pertaining to this project.

Ann Klemmer
STATE CLEARINGHOUSE

7/30/81
DATE

Approved July, 1979
Secretary, DFA

Anita Hisenberg
STATE PLANNING DIVISION DIRECTOR

7/30/81
DATE

White: to Applicant.
Green: for Federal Agency
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Goldenrod: Federal Funds Tracking.

29

3 ♦ 06 11 013

STATE OF NEW MEXICO
DEPARTMENT OF
FINANCE AND ADMINISTRATION
STATE PLANNING DIVISION

BRUCE KING
GOVERNOR

KATHLEEN R. MARR
SECRETARY

505 DON GASPAR AVENUE.
SANTA FE, NEW MEXICO 87503
(505) 827-2073
(505) 827-5191
(505) 827-2108

ANITA HISENBERG
DIRECTOR

JOE GUILLEN
DEPUTY DIRECTOR

July 22, 1981

Ed Webb
EIS Team Leader
Bureau of Land Management
Las Cruces District Office
Post Office Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Webb:

Enclosed are comments we have received from state agencies for the Southern Rio Grande Draft Environmental Impact Statement. Our office also supports the proposal. The only issue not clear, however, is how riparian habitats will be dealt with.

Sincerely,

Betsy Reed
Planning Bureau

BR:jeh

Enclosure

PLANNING DIVISION
(STATE CLEARINGHOUSE)
MIS-4
Review and Comment

DATE: 6-8-81

TO: *Thomas W. Merlan, State Historic Preservation Officer*

FROM: *Betsy Reed, Planning Bureau*

RE: *81 06 11 013* — *DEIS Grazing Southern Rio Grande Planning Area*
SAI NUMBER — PROJECT TITLE

Planning Division
LEAD AGENCY

Please review and comment on the above application and return to the sender by *7-20-81*.

1. Does this plan duplicate any programs which have similar goals and objectives to the proposed application?
   ____Yes (If yes, please identify these programs.)
   __X__No *NOT AWARE OF ANY.*

2. Does the proposed application conform with a comprehensive plan developed for the area in which it is located?
   ____Not applicable
   ____Yes
   ____No (If no, please explain in what way it is not compatible.)
   THIS IS THE PLAN

3. Does the proposed application conflict with any applicable statute, order, rule, or regulation (federal, state or local)?
   __X__Yes (If yes, please cite the conflicting statute, order, rule or regulation.)
   ____No
   SEE ATTACHED COMMENT

4. Describe any suggestions or means of improving or strengthening the proposed application.
   SEE ATTACHED COMMENT

____No interest in, or comment on, this project.
____Proposal is supported.
__X__Proposal is supported with recommendations.
____Proposal is not supported.
____Further information needed, review suspended and applicant notified of request.
__X__Comments attached.

On the basis of my review, I have indicated my response and/or recommendations above.

Signature of Reviewer — *STATE HISTORIC PRESERVATION OFFICER* — Title

7-22-81 — Date

HISTORIC PRESERVATION BUREAU — Agency

Approved July, 1979
Secretary, DFA

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1 - review division

69

29A

STATE OF NEW MEXICO
DEPARTMENT OF
FINANCE AND ADMINISTRATION
STATE PLANNING DIVISION

BRUCE KING
GOVERNOR

KATHLEEN R. MARR
SECRETARY

505 DON GASPAR AVENUE
SANTA FE, NEW MEXICO 87503
(505) 827-2073
(505) 827-5191
(505) 827-2108

ANITA HILSENBERG
DIRECTOR

JOE GURLEN
DEPUTY DIRECTOR

July 28, 1981

Mr. Daniel C. B. Rathbun
District Manager
Las Cruces District
Bureau of Land Management
Post Office Box 1420
Las Cruces, New Mexico 88004

Attn: Mr. Ed Webb, EIS Team Leader

RE: Southern Rio Grande
Grazing EIS

Dear Mr. Rathbun:

Thank you for your letter of July 8, 1981 providing this office with your suggested alternative to conducting Class II cultural resource surveys of the Southern Rio Grande Grazing Environmental Statement areas as required by our Programmatic Memorandum of Agreement. As you have stated, the Class II surveys have not been completed for the EIS areas, and I agree that for the reasons stated, it is unlikely that surveys of the nearly three million acres covered by the EIS will be completed at any time before completion of EIS.

As an alternative to completing these surveys, I agree that a firm commitment by the Las Cruces District to conduct Class II inventory surveys of all range improvements described in the DEIS and other land disturbing activities on BLM land not covered in this statement together with a concerted effort to integrate cultural resource data generated by other sources with your existing inventory can result in an acceptable alternative. In his May 13, 1981 letter, your District Archaeologist, Peter Laudeman, has listed potential sources outside the BLM for this additional data. In addition, any funds which may become available for Class II survey should be expended in a manner which will give the best results, such as in the little known areas of high site density listed by Mr. Laudeman in the above letter.

29A

Mr. Daniel C. B. Rathbun
July 28, 1981

Page 2.

This alternative, while acceptable to me, will, until the sample size is significantly increased over the current 1.88%, not alleviate the planning and management problems addressed in my April 17, 1981 letter. I do not believe that these problems will prevent the BLM from conducting an effective range management and improvement program, but I do think that the shortcomings of not having adequate cultural resource information at the inception of your management program should be discussed in your presentation of the alternative to the Class II survey.

I do not concede that there is no need to conduct the Class II surveys in order to obtain the necessary information for making effective planning and management decisions. However, I do recognize that budgetary and other constraints often force us to proceed with programs without completely understanding all consequences of the implementation. I appreciate the opportunity to discuss this alternative with you and look forward to working with you and your District Archaeologist to develop the necessary data and inventory as rapidly as possible.

Sincerely,

Thomas W. Merlan
State Historic Preservation Officer
Historic Preservation Bureau

TWM:DER:jmg

cc: Charles W. Luscher

Betsy Reed

70

29B

PLANNING DIVISION
(STATE CLEARINGHOUSE)
MIS-4
Review and Comment

DATE: *6-8-81*

TO: *Raymond R. Gallegos, Forestry Division*

FROM: *Betsy Reed, Planning Bureau*

RE: *81 06 11 013* SAI NUMBER — *DEIS Grazing Southern Rio Grande Planning Area* PROJECT TITLE

Planning Division
LEAD AGENCY

Please review and comment on the above application and return to the sender by *7-20-81*.

1. Does this plan duplicate any programs which have similar goals and objectives to the proposed application?
   _____Yes (If yes, please identify these programs.)
   _____No

2. Does the proposed application conform with a comprehensive plan developed for the area in which it is located?
   _____Not applicable
   _____Yes
   _____No (If no, please explain in what way it is not compatible.)

3. Does the proposed application conflict with any applicable statute, order, rule, or regulation (federal, state or local)?
   _____Yes (If yes, please cite the conflicting statute, order, rule or regulation.)
   _____No

4. Describe any suggestions or means of improving or strengthening the proposed application.

_____No interest in, or comment on, this project.
_____Proposal is supported.
_____Proposal is supported with recommendations.
_____Proposal is not supported.
_____Further information needed, review suspended and applicant notified of request.
_____Comments attached.

On the basis of my review, I have indicated my response and/or recommendations above.

Signature of Reviewer

Title

Date

Agency

Approved July, 1979
Secretary, DFA

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PLANNING DIVISION
(STATE CLEARINGHOUSE)
MIS-4
Review and Comment

DATE: 6-8-81

TO: Mark K. Sideris
Park & Recreation Division

FROM: Betsy Reed, Planning Bureau

RE: 81 06 11 013 — DEIS Grazing Southern Rio Grande Planning Area
SAI NUMBER — PROJECT TITLE

Planning Division
LEAD AGENCY

Please review and comment on the above application and return to the sender by 7-20-81.

1. Does this plan duplicate any programs which have similar goals and objectives to the proposed application?
   ____Yes (If yes, please identify these programs.)
   __X__No

2. Does the proposed application conform with a comprehensive plan developed for the area in which it is located?
   __X__Not applicable
   ____Yes
   ____No (If no, please explain in what way it is not compatible.)

3. Does the proposed application conflict with any applicable statute, order, rule, or regulation (federal, state or local)?
   ____Yes (If yes, please cite the conflicting statute, order, rule or regulation.)
   __X__No

4. Describe any suggestions or means of improving or strengthening the proposed application.

Some compromise between the DA and alternative EORV would strengthen the proposal. Both proposals enhance a wide range of resources values but fencing and/or intensive grazing management of riparian and key pseudoriparian habitat areas to a greater extent than that in the proposed action should improve wildlife, threatened or endangered species, and recreational resources value without significant ~~extra negative economic impacts to ranching and livestock grazing interests.~~

____No interest in, or comment on, this project.
____Proposal is supported.
__(__Proposal is supported with recommendations.
____Proposal is not supported.
____Further information needed, review suspended and applicant notified of request.
____Comments attached.

On the basis of my review, I have indicated my response and/or recommendations above.

Signature of Reviewer

Planner III
Title

Date

State Park and Recreation Division
Agency

Approved July, 1979
Secretary, DFA

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71

PLANNING DIVISION
(STATE CLEARINGHOUSE)
MIS-4
Review and Comment

DATE: 6-8-81

TO: Kate Wickes, Natural Resources Department

FROM: Betsy Reed, Planning Bureau

RE: 81 06 11 013 — DEIS Grazing Southern Rio Grande Planning Area
SAI NUMBER — PROJECT TITLE

Planning Division
LEAD AGENCY

Please review and comment on the above application and return to the sender by 7-20-81.

1. Does this plan duplicate any programs which have similar goals and objectives to the proposed application?
   ___✓___Yes (If yes, please identify these programs.)
   ___✓___No

2. Does the proposed application conform with a comprehensive plan developed for the area in which it is located?
   ___✓___Not applicable
   _____Yes
   _____No (If no, please explain in what way it is not compatible.)

3. Does the proposed application conflict with any applicable statute, order, rule, or regulation (federal, state or local)?
   _____Yes (If yes, please cite the conflicting statute, order, rule or regulation.)
   ___✓___No

4. Describe any suggestions or means of improving or strengthening the proposed application.

29D-1 In appendix B-9 a list of threatened, endangered and sensitive plants on public lands is provided. No source is given for this data although it is almostly certainly that provided by us to the BLM. In addition, township, range and section data is provided. This locational data is extremely inappropriate since collectors could easily use this information to exploit these plants. BLM should not be publishing such data.

_____No interest in, or comment on, this project.
_____Proposal is supported.
_____Proposal is supported with recommendations.
_____Proposal is not supported.
_____Further information needed, review suspended and applicant notified of request.
___x___Comments attached. See 4.

On the basis of my review, I have indicated my response and/or recommendations above.

[signature] — Systematic Resources Analysis Project Coordinato
Signature of Reviewer — Title

7-21-81 — Natural Resources
Date — Agency

Approved July, 1979
Secretary, DFA

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29D-1 Source of the data on threatened, endangered, and sensitive plants is shown on Table 2-5, page 2-15.

29E

PLANNING DIVISION
(STATE CLEARINGHOUSE)
MIS-4
Review and Comment

DATE: 6-8-81

TO: Steve E. Reynolds, State Engineer

FROM: Betsy Reed, Planning Bureau

RE: 81 06 11 013 DEIS Grazing Southern Rio Grande Planning Area
SAI NUMBER PROJECT TITLE

Planning Division
LEAD AGENCY

Please review and comment on the above application and return to the sender by 7-20-81.

1. Does this plan duplicate any programs which have similar goals and objectives to the proposed application?
   ____Yes (If yes, please identify these programs.)
   __X__No

2. Does the proposed application conform with a comprehensive plan developed for the area in which it is located?
   ____Not applicable
   ____Yes
   ____No (If no, please explain in what way it is not compatible.)

3. Does the proposed application conflict with any applicable statute, order, rule, or regulation (federal, state or local)?
   ____Yes (If yes, please cite the conflicting statute, order, rule or regulation.)
   __X__No

4. Describe any suggestions or means of improving or strengthening the proposed application.

29E-1 Page 2-32 - 1st paragraph under Ground Water: Suggest that the third line be changed in order that between the words "with" and "the" the phrase ...and a permit obtained from... could be added.

____No interest in, or comment on, this project.
____Proposal is supported.
____Proposal is supported with recommendations.
____Proposal is not supported.
____Further information needed, review suspended and applicant notified of request.
__X__Comments attached.

On the basis of my review, I have indicated my response and/or recommendations above.

Signature of Reviewer

Title

Date

Agency

Approved July, 1979
Secretary, DFA

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29E-1 This change is noted in the Errata section, FEIS p. 90.

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29F

PLANNING DIVISION
(STATE CLEARINGHOUSE)
MIS-4
Review and Comment

DATE: 6-8-81

TO: Charles P. Wood, Energy & Minerals Department

FROM: Betsy Reed, Planning Bureau

RE: 81 06 11 013 (SAI NUMBER) DEIS Grazing Southern Rio Grande Planning Area (PROJECT TITLE)

Planning Division (LEAD AGENCY)

Please review and comment on the above application and return to the sender by 7-20-81.

1. Does this plan duplicate any programs which have similar goals and objectives to the proposed application?
   ____Yes (If yes, please identify these programs.)
   __X__No

2. Does the proposed application conform with a comprehensive plan developed for the area in which it is located?
   __X__Not applicable
   ____Yes
   ____No (If no, please explain in what way it is not compatible.)

3. Does the proposed application conflict with any applicable statute, order, rule, or regulation (federal, state or local)?
   ____Yes (If yes, please cite the conflicting statute, order, rule or regulation.)
   __X__No

4. Describe any suggestions or means of improving or strengthening the proposed application.

__X__No interest in, or comment on, this project.
____Proposal is supported.
____Proposal is supported with recommendations.
____Proposal is not supported.
____Further information needed, review suspended and applicant notified of request.
____Comments attached.

On the basis of my review, I have indicated my response and/or recommendations above.

Charles P. Wood
Signature of Reviewer

E-25 Review Coordinator, New Mexico State Energy and Minerals Department
Title

June 15, 1981
Date

Agency

Approved July, 1979
Secretary, DFA

1 - white - to applicant
1 - yellow - SPD copy
2 - pink
1 - lead agency
1 - review division

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29G

PLANNING DIVISION
(STATE CLEARINGHOUSE)
MIS-4
Review and Comment

DATE: 6-8-81

TO: Robert H. Duran
State Highway Department

FROM: Betsy Reed, Planning Bureau

RE: 81 06 11 013 (SAI NUMBER) DEIS Grazing Southern Rio Grande Planning Area (PROJECT TITLE)

Planning Division (LEAD AGENCY)

Please review and comment on the above application and return to the sender by July 20, 1981.

1. Does this plan duplicate any programs which have similar goals and objectives to the proposed application?
   ____Yes (If yes, please identify these programs.)
   __X__No

2. Does the proposed application conform with a comprehensive plan developed for the area in which it is located?
   ____Not applicable
   __X__Yes
   ____No (If no, please explain in what way it is not compatible.)

3. Does the proposed application conflict with any applicable statute, order, rule, or regulation (federal, state or local)?
   ____Yes (If yes, please cite the conflicting statute, order, rule or regulation.)
   __X__No

4. Describe any suggestions or means of improving or strengthening the proposed application.

____No interest in, or comment on, this project.
__X__Proposal is supported.
____Proposal is supported with recommendations.
____Proposal is not supported.
____Further information needed, review suspended and applicant notified of request.
____Comments attached.

On the basis of my review, I have indicated my response and/or recommendations above.

R. H. Duran for M. L. Taylor
Signature of Reviewer

Planning Supervisor
Title

7/13/81
Date

New Mexico State Highway Department
Agency

Approved July, 1979
Secretary, DFA

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1 - review division

29H

PLANNING DIVISION
(STATE CLEARINGHOUSE)
MIS-4
Review and Comment

DATE: 6-8-80

TO: Harold Olson, Game and Fish Department

FROM: Betsy Reed, Planning Bureau

RE: 81 06 11 013 — DEIS Grazing Southern Rio Grande Planning Area
SAI NUMBER — PROJECT TITLE

Planning Division
LEAD AGENCY

Please review and comment on the above application and return to the sender by 7-20-81.

1. Does this plan duplicate any programs which have similar goals and objectives to the proposed application?
   _____Yes (If yes, please identify these programs.)
   _X_No

2. Does the proposed application conform with a comprehensive plan developed for the area in which it is located?
   _X_Not applicable
   _____Yes
   _____No (If no, please explain in what way it is not compatible.)

3. Does the proposed application conflict with any applicable statute, order, rule, or regulation (federal, state or local)?
   _____Yes (If yes, please cite the conflicting statute, order, rule or regulation.)
   _X_No

4. Describe any suggestions or means of improving or strengthening the proposed application.

_____No interest in, or comment on, this project.
_X_Proposal is supported.
_____Proposal is supported with recommendations.
_____Proposal is not supported.
_____Further information needed, review suspended and applicant notified of request.
_____Comments attached.

On the basis of my review, I have indicated my response and/or recommendations above.

Gerald Gatter — Signature of Reviewer
Chief Planning — Title
6-15-81 — Date
Game & Fish — Agency

Approved July, 1979
Secretary, DFA

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1 - review division

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29I

PLANNING DIVISION
(STATE CLEARINGHOUSE)
MIS-4
Review and Comment

DATE: 6-8-81

TO: Marty Castillo, EID

FROM: Betsy Reed, Planning Bureau

RE: 81 06 11 013 — DEIS Grazing Southern Rio Grande Planning Area
SAI NUMBER — PROJECT TITLE

Planning Division
LEAD AGENCY

Please review and comment on the above application and return to the sender by July 20, 1981.

1. Does this plan duplicate any programs which have similar goals and objectives to the proposed application?
   _____Yes (If yes, please identify these programs.)
   _x_No

2. Does the proposed application conform with a comprehensive plan developed for the area in which it is located?
   _____Not applicable
   _x_Yes
   _____No (If no, please explain in what way it is not compatible.)

3. Does the proposed application conflict with any applicable statute, order, rule, or regulation (federal, state or local)?
   _____Yes (If yes, please cite the conflicting statute, order, rule or regulation.)
   _x_No

4. Describe any suggestions or means of improving or strengthening the proposed application.

_____No interest in, or comment on, this project.
_x_Proposal is supported.
_____Proposal is supported with recommendations.
_____Proposal is not supported.
_____Further information needed, review suspended and applicant notified of request.
_____Comments attached.

On the basis of my review, I have indicated my response and/or recommendations above.

[illegible] — Signature of Reviewer
Environmental Review Coordinator — Title
July 8, 1981 — Date
Environmental Improvement Division — Agency

Approved July, 1979
Secretary, DFA

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29J

PLANNING DIVISION
(STATE CLEARINGHOUSE)
MIS-4
Review and Comment

DATE: 6-8-81

TO: Wm. Oscar Jordan, Attorney
State Land Office

FROM: Betsy Reed, Planning Bureau

RE: 81 06 11 013 (SAI NUMBER) DEIS Grazing Southern Rio Grande Planning Area (PROJECT TITLE)

Planning Division
LEAD AGENCY

Please review and comment on the above application and return to the sender by 7-20-81.

1. Does this plan duplicate any programs which have similar goals and objectives to the proposed application?
   ____Yes (If yes, please identify these programs.)
   XXX No

2. Does the proposed application conform with a comprehensive plan developed for the area in which it is located?
   XXXX Not applicable
   ____Yes
   ____No (If no, please explain in what way it is not compatible.)

3. Does the proposed application conflict with any applicable statute, order, rule, or regulation (federal, state or local)?
   ____Yes (If yes, please cite the conflicting statute, order, rule or regulation.)
   XXX No

4. Describe any suggestions or means of improving or strengthening the proposed application.
   N/A

____No interest in, or comment on, this project.
____Proposal is supported.
____Proposal is supported with recommendations.
____Proposal is not supported.
____Further information needed, review suspended and applicant notified of request.
__X__Comments attached.

On the basis of my review, I have indicated my response and/or recommendations above.

X _____
Signature of Reviewer

General Counsel
Title

July 24, 1981
Date

NEW MEXICO STATE LAND OFFICE
Agency

Approved July, 1979
Secretary, DFA

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1 - review division

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29

OMB Approval No. 29-R0218

FEDERAL ASSISTANCE

2. Applicant's application — a. Number: ; b. Date 19 (Year Month Day):
3. State application identifier — a. Number: 81 06 11 013; b. Date Assigned 19 81 06 02

1. Type Of Action (Mark appropriate box): ☐ Preapplication; ☒ Application DEIS; ☐ Notification Of Intent (Opt.); ☐ Report Of Federal Action

Leave Blank

4. Legal Applicant/Recipient
   a. Applicant Name: Department of Interior
   b. Organization Unit: Bureau of Land Management
   c. Street/P O. Box: P.O. Box 1420
   d. City: Las Cruces
   e. County: Dona Ana
   f. State: New Mexico
   g. Zip Code: 88004
   h. Contact Person (Name & telephone no.): MA. Ed Webb (505)524-3603

5. Federal Employer Identification No.: N/A

6. Program (From Federal Catalog) — a. Number: 15000; b. Title: Dept. of the Interior

7. Title and description of applicant's project
   DEIS - GRAZING - SOUTHERN RIO GRANDE PLANNING AREA
   The BLM proposes to implement a livestock grazing management program for the Southern Rio Grande Planning Area of the Las Cruces District in southwestern New Mexico.

8. Type of applicant/recipient
   A-State; B-Interstate; C-Substate District; D-County; E-City; F-School District; G-Special Purpose District; H-Community Action Agency; I-Higher Educational Institution; J-Indian Tribe; K-Other
   (Specify): BLM. Enter appropriate letter: A

9. Type of assistance
   A-Basic Grant; B-Supplemental Grant; C-Loan; D-Insurance; E-Other
   Enter appropriate letter(s):

10. Area of project impact (Names of cities, counties, states, etc.)
    (Counties)
    Dona Ana, Sierra, Luna, Socorro, Otero

11. Estimated number of persons benefitting: N/A

12. Type of application
    A-New; B-Renewal; C-Revision; D-Continuation; E-Augmentation
    Enter appropriate letter: A

13. Proposed Funding

a. Federal	$	00
b. Applicant		00
c. State		00
d. Local		00
e. Other		00
f. Total	$	00

14. Congressional Districts Of
    a. Applicant: N/A
    b. Project: 02

15. Type of change (For 12c or 12e)
    A-Increase Dollars; B-Decrease Dollars; C-Increase Duration; D-Decrease Duration; E-Cancellation; F-Other (Specify)
    Enter appropriate letter(s):

16. Project Start Date 19 (Year month day): N/A
17. Project Duration: N/A (Months)
18. Estimated date to be submitted to federal agency 19 (Year month day): N/A

19. Existing federal identification number: N/A

20. Federal agency to receive request (Name and address, including zip code): Dept. of Interior

21. Remarks added: ☐ Yes ☐ No

Section II Certification

22. The Applicant Certifies That
    a. To the best of my knowledge and belief, data in this preapplication/application are true and correct, the document has been duly authorized by the governing body of the applicant and the applicant will comply with the attached assurances if the assistance is approved.
    (1) (2) (3)
    Pursuant to OMB Circular A-95 this application was submitted, pursuant to instructions therein, to appropriate clearinghouses and responses are attached.
    New Mexico State Clearinghouse

	No response	Response attached
(1)	☐	☒ XX
(2)	☐	☐
(3)	☐	☐

Section III Federal Agency Action

23. Certifying representative — a. Typed name and title; b. Signature; c. Date signed (Year month day): 19

24. Agency name

25. Application received (Year month day) 19

26. Organizational Unit

27. Administrative office

28. Federal application identification

29. Address

30. Federal grant identification

31. Action taken
    ☐ a. Awarded
    ☐ b. Rejected
    ☐ c. Returned for amendment
    ☐ d. Deferred
    ☐ e. Withdrawn

32. Funding

a. Federal	$	00
b. Applicant		00
c. State		00
d. Local		00
e. Other		00
f. Total	$	00

33. Action date 19 (Year month day)

34. Starting date 19 (Year month day)

35. Contact for additional information (Name and telephone number)

36. Ending date 19 (Year month day)

37. Remarks added ☐ Yes ☐ No

38. Federal agency A-95 action

a. In taking above action, any comments received from clearinghouses were considered. If agency response is due under provisions of Part 1, OMB Circular A-95, it has been or is being made.

b. Federal Agency A-95 Official (Name and telephone number)

424-101

Standard Form 424 Page 1 (10-75)
Prescribed by GSA, Federal Management Circular 74-7

SECTION IV – REMARKS

MIS 1

STATE SUPPLEMENT TO STANDARD FEDERAL FORM 424

1. Is continuation of program anticipated?
   Yes_____ No Y Unknown_____
2. Source of funds: _____direct from the federal government _____indirect through an intermediary. If indirect, specify source _____
3. Have you applied for any other funds for this project: Yes_____ No X
   If yes, please list: _____
4. Number of positions that will be funded by this program/grant. Total positions 0
   How many permanent status: 0 How many term status 0
5. Estimate the total personnel costs including benefits for the program/grant for the
   current year: $ 0
   next year: $ 0
6. Will subgrants be made under this program/grant? Yes_____ No X
7. Is a State Plan required: Yes_____ No X Is a Regional Plan required: Yes_____ No X Is a City Comprehensive Plan required: Yes_____ No X
8. List the Sub-state Clearinghouses to which this application has been submitted for review:
   _____San Juan Regional Committee
   _____Southwest New Mexico Council of Governments
   _____McKinley Area COG
   _____Eastern Plains Council of Governments
   _____Middle Rio Grande Council of Governments
   _____North Central New Mexico Economic Development District
   _____Southeastern New Mexico Economic Development District
   Y Southern Rio Grande Council of Governments
9. Are there matching requirements: Yes_____ No X If yes, indicate
   _____% Federal _____% State _____% Local
10. Are the matching ratios expected to change in future years:
    _____Yes X No; Indicate expected changes: State Increase _____, State Decrease _____,
    Local Increase _____; Local Decrease _____.
11. Is Indirect Cost Recovery allowed under this program/grant:
    _____Yes Y No; Does your entity have an indirect cost recovery plan that covers this grant:
    Yes_____ No Y
12. Source of Funds for Matching:

STATE:	MUNICIPAL:	COUNTY:
General Fund _____	General Fund _____	General Fund _____
Dedicated Funds _____	Dedicated Funds _____	Dedicated Funds _____
Other _____	Other _____	Other _____

Approved July , 1978
Secretary, DFA

2 - white
1 - for applicant to send with application to Fed. Agency
1 - Review Div.
1 - yellow - SPD copy
1 - pink - COG's copy
1 - goldenrod - applicant copy

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STATE PLANNING DIVISION
(STATE CLEARINGHOUSE)

MIS-7

NOTIFICATION OF AWARD

TO: State Clearinghouse
State Planning Division
Department of Finance & Administration
505 Don Gaspar
Santa Fe, New Mexico 87503
(505) 827-2073

DATE:

FROM: Department of Interior
Bureau of Land Management
P.O. Box 1420
Las Cruces, New Mexico 88004

Person Completing Form _____

Telephone Number _____

Please complete both sides of this form and return to the State Planning Division upon receipt of Federal Action.

APPLICANT: Department of Interior BLM

PROJECT TITLE: DEIS Grazing Southern Rio Grande Planning Area

FEDERAL CATALOG NUMBER: 15.000

S.A.I. NUMBER 81 06 11 013

ACTION TAKEN BY FEDERAL GOVERNMENT:

_____FUNDED AS SUBMITTED _____AMOUNT INCREASED _____AMOUNT DECREASED

_____APPLICATION REJECTED _____OTHER(SPECIFY) _____

FUNDING AS AWARDED:

	AMOUNT
FEDERAL	$ _____
STATE	_____
LOCAL	_____
OTHER	_____
TOTAL	_____

EFFECTIVE DATE OF GRANT
MO. DA. YR.

ENDING DATE OF GRANT
MO. DA. YR.

Star Rt. #2, Box 26
Deming, New Mexico
88030
July 23, 1981

Mr. Edd Webb EIS Team Leader
BLM Las Cruces District Office
P. O. Box 1420
Las Cruces, New Mexico 88004

Dear Sir:

The following are comments to the Draft E.I.S. on prooosed livestock grazing for the Southern Rio Grande Planning Area.

I am totally against using the 5 year average licensed use as a base from which to apparently further reduce grazing capacities on ranches in the district. It is the apparent belief of BLM that if a rancher does not stock his ranch to existing preference each year, that the ranch will not run the number it is permited for. The agency is entirely wrong in this type of thinking and has obviously given no thought or care to the economics of the livestock business.

In short, the cattle business has been very risky since 1973. The more cattle a person owned, the bigger chance he was taking for a loss. Runaway inflation and less than desirable returns have kept most operators at less than full capacity through most of the last 8 years in all segments of the cattle industry. Dry years, operator age and health, political and economic psychology and an individual ranchers own management practices may cause the 5 year average to be less than his existing preference.

In the proposed action alternative, the starting point from which any adjustments are to be made should be the existing preference.

The prooosed action calls for chemical treatment of 29,772 acres of mesquite and 9705 acres of cresote. I believe treatment on a much larger scale is needed such as called for on page xvii under the MLFP alternative. I feel mesquite and cresote control should be undertaken on many more allotments than is indicated. Realizing the terrific expense, a cost sharing program between BLM and permitee might be effective to encourage a quicker and broader control of invading brush species.

I prefer continuous year long grazing systems in this arid Southwest region with a great deal of flexibility as discussed on pages 3-48 to 3-51

On page xiv of the document, the projections of net cash income loss and lowered value of ranches, due to reduction in permits, is too

30

low. With full implementation of the proposed action, income loss and lowering of ranch values will be much more severe than the imoact statement reflects. Under these conditons many of those presently operating the ranches will be out of business long before the year 2010. It is unfair and totally wrong to those who own ranches with large amounts of intermingled private and state land for BLM to impose actions that will lower the value of these ranches. BLM should not have the right to mandate decisions on State and Private land. I would hope the consultation process with landowners actually makes use of landowners ideas and desires and is not merely a formality.

On page 3-3 of the E.I.S., it says the economic assessment was based on the assumption that livestock market conditions would remain constant. In fact, they do not remain constant and have fluctuated widely over the last few years. Flexibility is a key to success in the livestock business. Therefore any plan which is not flexible is not successful from an economic point of view.

I do not believe that all the agencies and interest groups mentioned on pages 4-4, 4-5 and 4-6 should be participating in a decision making process in South West New Mexico involving intermingled federal, private and state lands. I don't agree with Texas State Agencies as well as out of state Conservation Organizations having any input regarding management of land in Southwest New Mexico.

Sincerely
/s/ Joe Bill Nunn

78

United States Department of the Interior
NATIONAL PARK SERVICE
SOUTHWEST REGION
P.O. Box 728
Santa Fe, New Mexico 87501

IN REPLY REFER TO:
L7619(SWR)PE

JUL 27 1981

Memorandum

To: District Manager, Bureau of Land Management, Las Cruces
District Office, Las Cruces, New Mexico
Attention: Ed Webb, EIS Team Leader

From: Regional Director, Southwest Region

Subject: Review of Bureau of Land Management Draft Environmental Impact Statement on the Proposed Livestock Grazing Management Program for the Southern Rio Grande Planning Area, Dona Ana, Sierra, Luna, Socorro and Otero Counties, New Mexico (DES 81/20)

We have reviewed the subject document and offer the following comments.

31-1 We suggest that adequate Class II surveys of the Southern Rio Grande Planning Area would be preferable for cultural resource management to conducting Class II surveys for specific surface disturbing activities alone. In this way, sites can be evaluated in their regional context thus resulting in a better understanding of the significance of individual sites and the appropriate mitigation measures needed, as well as in a savings in planning effort.

Also, we suggest that a testing program to study the effects of herbicides on C-14 dating might be considered.

79

31-1 See letters of consultation with State Historic Preservation Officer, Appendix H (FEIS p. 141).

July 24, 1981
325 Chermont
El Paso, Tx 79912

Ed Webb, EIS Team Leader
BLM-Las Cruces District
P.O. Box 1420
Las Cruces, N.M. 88004

Dear Mr. Webb,

32-1 My interest in your planning area is primarily from an archeological perspective. The main problem with your discussion is the fact that your available data base is too small to provide reliable predictions of site densities and locations. Not only is the surveyed area too small, but it is not even a probablistic sample of the region.

My own work in the Tularosa Basin yielded on the order of ten sites per km^2. This, and my own observations regarding the similarity of archeological remains in the two areas, suggest that your predicted site total is too conservative. Even more importantly, it is virtually certain that the distribution of sites is not uniform. In the long run, it is more cost-effective to locate and avoid the landform settings which contain complex archeology, than it is to effectively mitigate damage to such areas during the actual development phase.

A case in point is the proposed ORV use area at Anapra. As your own recent survey has verified, significant cultural resources are threatened. It makes perfect sense to relocate the area a few miles north to Strauss, where ORV use has already caused extensive damage. It is unlikely that much in the way of significant sites has survived this activity.

In short, if planning is really your goal, a series of probablistic intensive surveys are needed. Your currently recognized areas of high site density cannot be assumed to even approximate reality without such further work. Also, in designing this work, care should be taken to insure comparability of results between contractors. This will require the BLM to set high standards for the contracts, rather than contractors producing reports of varying degrees of usefulness.

The BLM needs to come to the realization that cultural resource management is a major issue in land-use planning. It must contribute to the making of management decisions, not merely be affected by such decisions. The justifiability of any management decision which might affect your cultural resources cannot be documented at this point.

Sincerely,

David Carmichael
Project Archeologist
U. T. El Paso

32-1 See letters of consultation with State Historic Preservation Officer, Appendix H (FEIS p. 141) and DEIS p. 2-40.

State of New Mexico

DEPARTMENT OF GAME AND FISH

STATE CAPITOL
SANTA FE
87503

July 27, 1981

Mr. Ed Webb
EIS Team Leader
Bureau of Land Management
Las Cruces District Office
P. O. Box 1420
Las Cruces, New Mexico 88004

Dear Mr. Webb:

I have reviewed the Draft Grazing Environmental Impact Statement, Southern Rio Grande Planning Area, and liked it. My affirmation of the Plan was based on our understanding that your main intent is to improve range conditions throughout the study area by vegetative manipulation and by adopting acceptable grazing systems. I feel that any range improvements and the subsequent increase in forage production can only enhance the range for wildlife, so I am enthusiastic about this aspect of your planning effort.

As the range becomes better through your efforts, the multiple-use policy of the Bureau of Land Management will allow you to set-aside more AUMs for wildlife use.

Sincerely,

Harold F. Olson
Director

fm

cc: Lee Upham

July 20, 1981

Ed Webb
BLM, Las Cruces District Office
1705 N.Valley Drive
P.O. Box 1420
Las Cruces, N. Mex. 88001

Dear Mr. Webb,

The following is a written version of our oral comment made at Truth or Consequences. Also included are comments to the D.I.S. which time did not permit us to address orally.

I am Rod Hille, representing the Southwestern N.Mex. Grazing Assoc. My following comments, due to allocated time, will only highlight areas of major concern in which some of our members question the accuracy or adequacy of the D.I.S. Statement. We will file a version in writing at a later date.

Our comments are not intended to be personal attacks upon any person or persons who authored or reviewed this document, but are meant to be constructive.

34-1 To properly assess the future impact of any force upon the environment one has to study the impact that past factors and forces have had on the environment. This subject has not been addressed. We believe that a vegetative history with conclusions from different schools of thought would be helpful in making decisions concerning the future use of our natural resources.

34-2 In comparing the different alternatives considered, we noticed and take issue with some slanted or biased statements made in the "No Action" alternative. A few examples are as follows. In the summary on page XV you state, "Wildlife benefits would not occur from new livestock water developments." In the past private capital has gone into putting water devel-

34-1 The effect of drought on vegetation was discussed; Herbel, et al. (1974); Pieper and Donart (1975); Nelson (1934); and Herbel and Gould on page 2-28. The effect of drought on livestock production by Wallace and Foster (1975) was noted on page 2-29. As indicated on page 3-5, it was noted that grazing studies in the southwest show a need for change in management along with proper stocking rates in order to obtain effective results in rangeland improvement; Cable and Martin (1964); Paulsen and Ares (1962); Canfield (1939). Reference was made throughout Chapter 3 on the effect of grazing intensity on production and ground cover; Martin (1972) page 3-10; Blydenstein, et al. (1957); and Potter and Krenetsky (1967) page 3-14; Dickson, et al. (1948) and Martin (1972) page 3-24. The effects of various grazing systems on livestock production is discussed on page 3-50; Pieper, et al. (1978); Beck (1978); Dwyer (1980); Heady (1980); Martin (1975); and Kothmann (1980).

34-2 See revised Summary p. xiii.

opments on public land. What is going to stop this trend? Is the BLM going to stop issuing Section 4 permits for new water developments?

34-2 cont.

On page 3-81 you state "Increased number of visitor days attributable to big game hunting have been projected for the long term in the SRGPA under PA and all of the alternatives except the NA alternative." This is contradictory to the statement made on page 3-68. Under the PA you state, "Deer hunting pressure would increase with any alternative due to increases in the regional population. This change would occur regardless of management actions."

34-3

On page 1-24 it states, "Initial reduction livestock numbers and changes in livestock distribution under the PA and all alternatives, except the No Action alternative, would enhance the quality of the vegetation. (NEPA objective 6). The rangeland would continue to deteriorate under the No Action Alternative." We question this statement very strongly. We have not seen any valid data in this document to substantiate this broad general statement. It is true there are areas that will continue to deteriorate under all alternatives due to the invasion of brush, but at the same time, many range sites now with a potential of improving by management are improving over a period of the last few decades. We have no scientific data to substantiate this claim, as the BLM has no data to substantiate their claim. The E.I.S. document states on page 2-6, "Most of the permittees using the public land for grazing purposes consider the rangeland at this time to be in good to excellent condition." We feel that since you printed this statement in the E.I.S. document that some credibility exists with the permittee opinion.

As for general comments on Chapter 1; On pages 1-4 the intent to use the 5 year average licensed use to determine the initial livestock grazing allocations is stated as the proposed action. Why use an arbitrary figure to start from, such as the 5 year average, when it is not known as to why the

34-4

34-3 See revised DEIS p. 3-68 (FEIS p. 121).

34-4 See revised DEIS p. 1-4 (FEIS p. 96).

rancher paid on that amount? Was it economic, social, security, carrying capacity or simply the phase of the moon? The Bureau in years past has encouraged permittees to pay on only what they actually run. Some ranchers were skeptical and didn't follow the BLM's advice. Those that did are now having this fact used against them. The Bureau established a preference years ago and this properly should be the starting point for any studies. 34-4 cont.

On Pages 1-3, admission is made to the fact that SVIM data is unacceptable to set forage allocations and carrying capacities. We very strongly feel that the data should not be used in future decisions. What is going to happen to permittees who are not going to be monitored? Are they going to be faced with the SVIM data at a later date? Some worry about the Bureau's favorite cliche, "it is the best data available."

Chapter 3:

We feel that the basic assumptions made by BLM specialists in assessing the impacts on various environmental elements should be somewhat realistic. We feel that #1 on Page 3-2 is a very UNrealistic assumption to make. "1. The BLM would have the funds and manpower to implement the proposal or any alternative selected." I hope that we don't have too many other government agencies using the same basic assumptions to make decisions.

On page 3-12 it states "Overall, any improvement in rangeland conditions occurring under the NA alternative would be the result of climatic conditions." To go along with this line of thought, I would like to quote from page 3-29. "Norton 1981 reported that, in a realistic rangeland situation in the western U. S. the influence of grazing on vegetation production is insignificant in comparison withe effect of climate on production." To me, this fact should carry heavy weight in favor of using the NA alternative. Or at least using the historical preference for a starting point in the monitoring process.

84

On page 3-70, concerning social and economic conditions, you state that "Under the Proposed Action, Maximization of Livestock Forage Production, and Enhancement of Other Resource Values Alternative, the initial livestock forage allocation would be the same as the present 5 year average licensed use of 192,364 AUMs. This would be a decrease of 31,253 AUMs from existing preference." The social and economic impacts were analyzed using these figures. Using these figures greatly distorts the actual economic impact for this reason. To achieve the same per cent reduction on Federal Land would require the same per cent reduction on the other intermingled private and state lands. Therefore, the economic impact is in error, and is much more severe than the E. I. S. states. In considering ranches with Sec. 3 permits the total AUM reduction raises from 31,253 to a reduction of 42,471. Now consider the unknown amount of AUMs reduction on private and state land to achieve the proposed reduction on federal land on ranches with Sec. 15 permits. The total actual reduction of AUMs on ranches in the planning area would be from 30% to 60% more than we are lead to believe in the E.I.S.

34-5

As for a brief comment on Chapter 4, we feel that the section on consultation and coordination should have some emphasis on input from the other land owners intermingled with the public land. The E.I.S. mainly shows public input, not land owner input.

We as permittees are glad to see the BLM not use the invalid SVIM data in setting forage allocation. Anyone can see the senseless irreparable damage that might have occurred to our citizen's lives. We also believe that to use SVIM for projecting goals by year 2010 is also invalid and can cause much misunderstanding in the use of our renewable natural resources.

34-6

34-5 The economic impacts were analyzed on the reductions on public land as the extent of fencing out inholdings of state and private lands is not known. Permittees with large inholdings of state and private lands would probably fence out these inholdings. Permittees with small inholdings probably would not fence out. The economic impacts would be greater, but to what extent is not known at the present time.

34-6 As stated in Appendix B-1 (page B-2), any inconsistencies which exist using this method would tend to overestimate as often as underestimate. Averages were used which would tend to reduce any inconsistencies which might exist. The projected goals were based on the differences between rangeland in poor, fair, and good condition at the present time. Also, refer to DEIS pages 1-1 and 1-2 for further discussion on SVIM.

Additional Comments:

34-7 On page 3-45 you use the term "climax communities". You should define what you are talking about when you use this term. First of all there is much discrepancy as to just what climax is or was. This discrepancy exists among and between professionals of the BLM and universities. Secondly, if you are referring to a condition which existed before the white man settled this area, you are forgetting that there are other man-made influences upon the environment besides grazing. We therefore believe that your statement is misleading.

34-8 On page 3-42 under the No Action Alternative, you state "If brush invasion had started at the time of the inventory, but was insufficient to change the site from a grass aspect, this 3rd would likely change to a mesquite, half-shrub or mixed shrub rolling upland site by 2010. Once begun, such changes appear to occur even with complete protection from livestock grazing." If this is true for the No Action Alternative, it is also true of the Proposed Action, Elemination of Livestock Grazing and Ennancement of other Resource Values Alternatives and you should state it as such.

34-9 In Appendix 3-1 you discuss the changes in vegetation under each of the proposed actions. We feel that these projections could be very misleading. First of all there is very little scientific data to base your projections on in this type of vegetation types. Secondly, SVIM data was used and we are not convinced that the SVIM data should be used in this improven manner. Of the three factors used to influence the estimated change in vegetation the professional judgement is probably the most accurate. But at the same time documented changes in vegetation and factors causing such are very limited. I don't know of any BLM employees old enough to have witnessed the changes over a long enough time to make such projections. We feel that a statement should be made to the effect that the projections could have a lot

98

34-7 Potential natural plant communities as described for range sites by the Soil Conservation Service.were used as the climax vegetation community in assessing impacts described in the DEIS (see the definition of Rangeland Condition (Ecological), p. GL-9). The statement is that under the NA Alternative, the ecological condition of all habitats would trend toward climax. The same statement can also be made for all alternatives other than the NA because of the management objective of improving rangeland condition. Please note in the same paragraph where the statement in question is made that the alternatives were evaluated by assuming a 10 point (on a scale of 0-100) improvement in ecological condition, or an ecological succession toward climax. Other than using the potential natural plant communities as described by SCS, we would be hesitant to attempt to describe what a climax community was, is, or will be, because of the discrepancy among professionals which you mentioned.

34-8 See revised DEIS pp. 3-42 to 3-43 (FEIS pp. 114-115).

34-9 Projections of impacts are estimates only. Refer to item 8, DEIS p. 3-3.

34-9 cont. of errors in them due to the lack of data on which to base such projections.

On Page GL-1, in your definition of an Animal Unit, you use 26 pounds as the average daily forage consumption. This definition is from SVIM and leads us to believe that you still are not convinced that you might be able to use SVIM at a later date. This worries us. The use of 26 pounds is in conflict with current research and the professional judgement of the Range Improvement Task Force. They advocate the use of 20 pounds. Any average figure is just an average figure and should not be applied to specific ranch allotments. The daily intake will vary depending on the cow as well as climate and soil conditions. As an extreme example, you can bring cattle into the arid Southwest from East Texas and get along alright, but you can't take cattle from the arid Southwest to East Texas without problems of starvation even while standing in grass up to their bellies. Our arid Southwest cattle haven't got a stomach big enough to hold enough of East Texas grass to get fat. The forage in this area also varies depending on soil and the climate variances from year to year.

34-10

It would be nice if you could always add 2 and 2 and come up with four, but as you and I both know your job of Range Management entails more art than mathematics.

Thanks for the opportunity to make these comments.

Rod Hille

Rod Hille

President - Southwestern N. Mex.
Grazing Association

34-10 See response to comment 25-10.

MODIFICATIONS AND CORRECTIONS TO THE DEIS

MODIFICATIONS AND CORRECTIONS TO THE DEIS

Introduction

The modifications and corrections section contains revisions made to the Draft EIS based on new or more complete information, changes in BLM Guidance since release of the Draft, or errors and omissions identified through the public review process. Minor changes are incorporated into the Errata section below. Where significant changes have been identified, the entire page has been reprinted, with the changes highlighted.

Errata

The following changes in the DEIS are of editorial nature, and are relatively minor. Consequently, the affected pages have not been reprinted in full. These changes are to be incorporated into the DEIS.

Throughout document. References to Water and Power Resources Service should be changed to Bureau of Reclamation.

MAPS

Map Errata - Large Colored Visuals

Visuals A, B, and C. Correct spelling. Change Pedro Armandariz Grant to Pedro Armendariz Grant.

Visual A, Legend. Areas indicated as Water and Power Resources Service should read Other Agencies Withdrawal.

Visual A, Legend. Change Not Alloted to Not Allotted.

Visual C, Note to User. Change porposes to purposes.

Map 1-3, follows page 1-22, Legend. Change Chemical Treatment of Cresote to Chemical Treatment of Creosote. Change Mechanical Treatment of Cresote to Mechanical Treatment of Creosote.

Map 2-10, Legend. Add the following to the end of sentence All other public land would be open: to ORV use (i.e. open areas would be managed for all activities subject to the operating regulations and vehicle standards set forth in subparts 8341 and 8343 of 43 Code of Federal Regulations).

TABLE OF CONTENTS

Page vi, Map 2-7. Change page number from follows 2-42 to follows 2-44.

Page vi, Map 2-8. Change page number from follows 2-44 to follows Map 2-7.

Page vii, Appendix H, Cultural Resources. Add subheading: Letters of Consultation with State Historic Preservation Officer, H-1.

CHAPTERS

Page 1-3, under OBJECTIVES, (1). Reword sentence to add phrase and from 1,766 AUMs to 3,771 AUMs, respectively, as follows: "(1) by the year 2010, increase total livestock and big game forage production from 192,364 Animal Unit Months (AUMs) to 215,070 AUMs and from 1,766 AUMs to 3,771 AUMs, respectively.

Page 2-4, Paragraph 5, line 3. Add the following after sentence ending "composition for a particular range site.": (See Appendix B-3 for methodology used for this determination.)

Page 2-6, Table 2-1, Notes. Change pages B-15 to B-23 to pages B-13 to B-21.

Page 2-9, Table 2-3. Add the following: Note: a/See Appendix B-5 for list of scientific and common names.

Page 2-13, Paragraph 1, line 4. Change Herbal to Herbel.

Page 2-15, Table 2-5, Sensitive Species. Change Cerus greggii to Cereus greggii.

Page 2-18, WILDLIFE, line 14. Change (See Appendix D-3 for methodology . . .) to (See Appendix D-2 for methodology . . .).

Page 2-19, Table 2-8, Pseudoriparian, third column. Change Diversity Index Plants from .730 to .0730.

Page 2-19, Table 2-8, Notes. Change a/See Appendix D-3 for Methodology to a/See Appendix D-2 for Methodology.

Page 2-29, second full paragraph, line 6. Change (43 CFR 4115.2(E)(11)) to (43 CFR 4130).

Page 2-32, Ground Water, first paragraph, third line. Add the phrase and a permit obtained from as follows: "application to appropriate water must be filed with and a permit obtained from the State Engineer . . .."

Page 2-49, paragraph following Table 2-19, line 1. Change $611,165 to $611,165,000.

Page 2-50, Table 2-20. Delete the following sentence under a/: These figures are not reflected in the total.

Page 2-54, first partial paragraph. Delete last sentence: This pattern is maintained and strengthened by a complex network of intermarriage among members of the oldest families.

Page 3-18, Paragraph 3, line 3. Reword sentence to add phrase 600 acres of cholla, as follows: "would be completed on 11,765 acres of tarbush, 600 acres of cholla, and 12,318 acres of creosote."

Page 3-18, Paragraph 5, line 4. Change mechnical to mechanical.

Page 3-24, Paragraph 1, line 7. Reword sentence to add phrase of black grama, as follows: "Composition of black grama on the heavy zone utilized at 69 percent, the . . . ."

Page 3-24, Paragraph 1, line 9. Change 143 to 14.3.

Page 3-24, Summary, lines 5 and 6. Change numbers from 662,646; 1,038,413; and 444,975 to 806,616; 964,545; and 374,873.

Page 3-30, Paragraph 3, line 3. Change nearby level slopes to nearly level slopes.

Page 3-30, Paragraph 6, line 8. Change nearby level slopes to nearly level slopes.

Page 3-30, MLFP Alternative, second paragraph, line 2. Change 163 acres to 162 acres.

Page 3-31, Summary, line 3. Change 163 acres to 162 acres.

Page 3-31, Paragraph 5, line 8. Change nearby level slopes to nearly level slopes.

Page 3-32, Paragraph 2, line 7. Change (See Appendix D-3 for Methodology.) to (See Appendix D-2 for Methodology.).

Page 3-32, last paragraph. Change sentence to read as follows: The riparian SHS is second in importance to doves and dove production would be expected to increase with improvement in ecological condition.

Page 3-58, Paragraph 1, line 9. Change (Trumble 1976) to (Tromble 1976).

APPENDICES

Page B-27 (Appendix B-9). Under Las Uvas Planning Unit, change plant from Cerus greggii to Cereus greggii.

Pages C-4 through C-9 (Appendix C-2). Column (h). Change (In./Hr.) to (In./In.).

Page D-7 (Appendix D-1). Add the following to the list of fishes.

Threadfin shad	Dorosoma ptenense
Smallmouth bass	Micropterus dolomieui

Page D-10 (Appendix D-2), fourth paragraph, line 3. Change contrast to contract.

Page E-7 (Appendix E-1). Add the following section: Note: * - indicates unallotted acres.

Page E-16 (Appendix E-3), Allotment 3016. Under the column "Change from Present Total to Proposed Total AUMs," change +346 to -346.

Page I-1 (Appendix I), Source and Notes. Change a/ from New Mexico Department of Game and Fish, Random Card Survey, 1978 to New Mexico Department of Game and Fish, Random Card Survey (data used 1978), 1980.

GLOSSARY

Add:

Page GL-3, following DEFERRED ROTATION GRAZING:

DESERT. A region in which vegetation is so scanty as to be incapable of supporting any considerable population.

Page GL-10, following SEDIMENTARY:

SEMI-DESERT. An area having some of the characteristics of a desert and often lying between a desert and grassland or woodland.

REFERENCES

Page R-4, Entry 10, lines 3 and 4. Delete (unpublished data). Add Bulletin 684 and May 1981 as follows: "Cultural Experiment Station Bulletin 684. Las Cruces, New Mexico: New Mexico State University, May 1981."

Page R-5, Entry 8. Change Santa Gortruch's to Santa Gertrudis.

Page R-6. Add the following entries before Hunt, W. G.:

Hubbard, John P. "Revised Checklist of the Birds of New Mexico." New Mexico Ornithological Society Publication No. 6. Albuquerque, New Mexico: McLeod Printing Company, 1978.

Hubbard, John P. and Others. Handbook of Species Engangered in New Mexico. Santa Fe, New Mexico: New Mexico Department of Game and Fish, 1979.

Page R-8: Add the following after last entry under New Mexico Department of Game and Fish:

New Mexico Department of Game and Fish; U.S. Department of Agriculture, Forest Service; and U.S. Department of the Interior, Bureau of Land Management. Big Game Browse Range Analysis Techniques for New Mexico: Rio Grande - Las Vegas Resource Area. Available at the BLM Las Cruces District Office, Las Cruces, New Mexico. (No date)

Page R-9. Add the following entry after Norton, B.E.:

Odum, Eugene P. Ecology. New York: Holt, Rhinehart, and Winston, 1963.

Page R-10: Add the following entry after Pratchett, D. and Schirvel, B.:

Putnam, Lewis. District Supervisor, New Mexico State Engineer Regional Office. Impact of Additional Water Consumption on Water Resources. (personal communication) Bruce Call, EIS Team Soil Scientist, Las Cruces District Office, 1981.

Page R-10, Entry 4. Change Reuta, M. C., and . . . to Resta, M. C., and . . . .

Page R-11. Add the following entry after Soil Science Society of America:

Sorensen, Earl F. "Water Use by Categories in New Mexico Counties and River Basins, and Irrigated and Dry Cropland Acreage in 1975." Technical Report 41: New Mexico State Engineer. Portales, New Mexico: Bishop Printing and Litho Co., 1977.

Page R-11, Entry 9. Change Trumble, J. M. to Tromble, J. M.

Changes to the Text

As a result of changes due to public comment, other agency review, and internal review, the following DEIS pages have been reproduced in full.

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DEIS p. E-33	127
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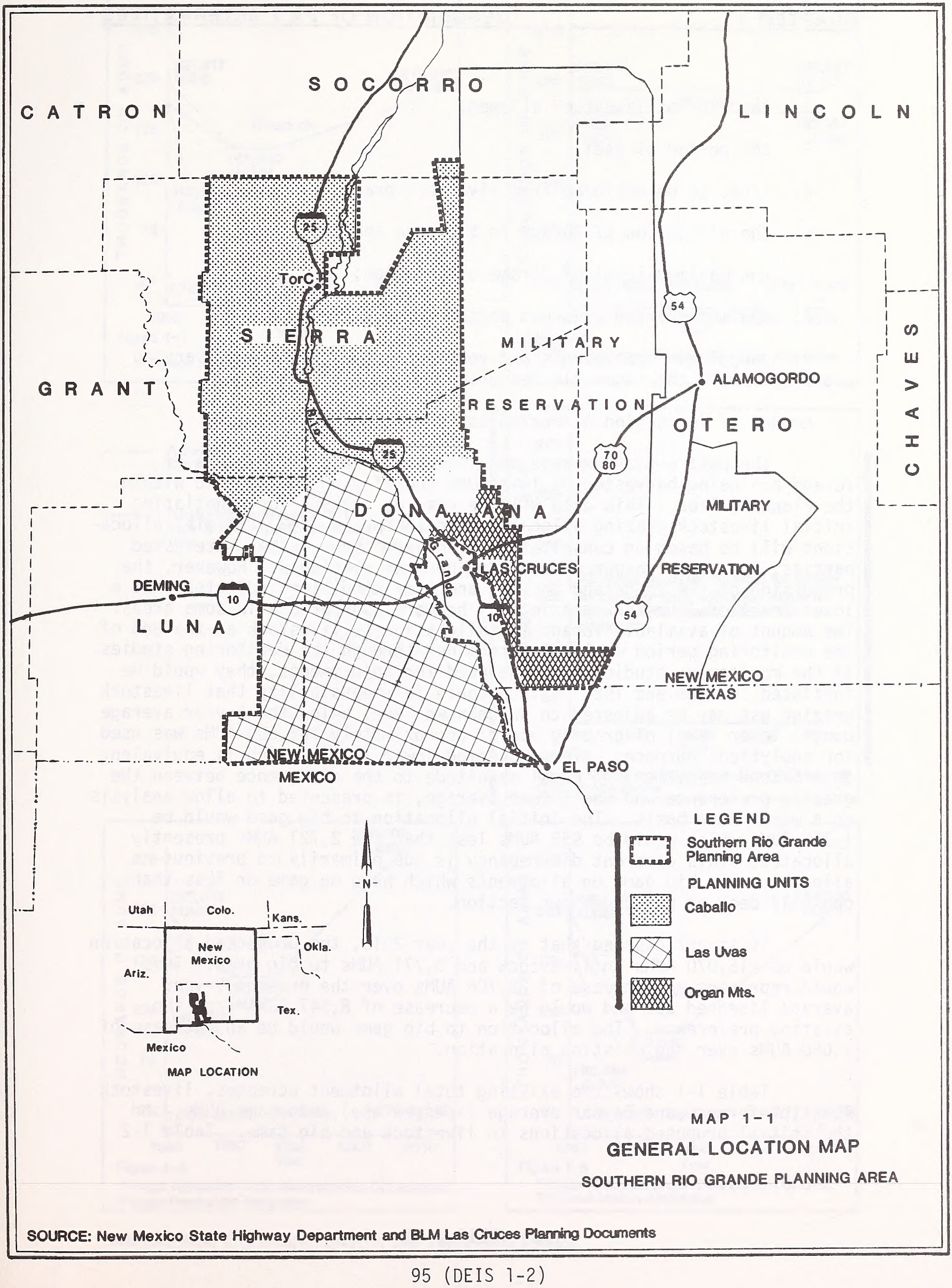
DEIS p. F-5	129



MAP 1-1

GENERAL LOCATION MAP

SOUTHERN RIO GRANDE PLANNING AREA

SOURCE: New Mexico State Highway Department and BLM Las Cruces Planning Documents

2. the kind of livestock allowed;

3. the period of use;

4. areas to be excluded from livestock grazing;

5. the allocation of forage to big game species;

6. the maximum level of forage utilization;

7. minimum grazing and rest periods;

8. rangeland improvements and vegetation treatments necessary to properly manage the renewable resources on the Planning Area.

Amount of Vegetation Allocated to Grazing and Other Uses

The past 5-year average use indicates that 192,364 AUMs of forage are being harvested by livestock annually on public land within the Planning Area. This data will be used as a basis for negotiating initial livestock grazing allocations beginning in 1983. Initial allocations will be based on consultation with permittees, other interested parties, and other resource data that becomes available. However, the proportion of the rangeland in fair and poor condition indicates that a lower level of livestock grazing may be more appropriate in some areas. The amount of available forage for allocation to livestock at the end of the monitoring period would be determined through the monitoring studies. If the monitoring studies show the need for adjustments, they would be initiated in 1985 and 1987. Since there is a possibility that livestock grazing use may be adjusted to an unknown level below the 5-year average use, a lower level of grazing use of approximately 165,500 AUMs was used for analytical purposes. The projected lower level, which is equivalent to a second adjustment of equal magnitude to the difference between the grazing preference and the 5-year average, is presented to allow analysis on a worst case basis. The initial allocation to big game would be 1,766 AUMs which would be 955 AUMs less than the 2,721 AUMs presently allocated. This apparent discrepancy is due primarily to previous allocations to big game on allotments which have no game or less than one-half deer or pronghorn per section.

It is anticipated that by the year 2010, the projected allocation would be 215,070 AUMs to livestock and 3,771 AUMs to big game. This would represent an increase of 22,706 AUMs over the present 5-year average licensed use and would be a decrease of 8,547 AUMs from the existing preference. The allocation to big game would be an increase of 1,050 AUMs over the existing allocation.

Table 1-1 shows the existing total allotment acreages, livestock AUMs (preference and 5-year average licensed use), big game AUMs, and the initial proposed allocations to livestock and big game. Table 1-2

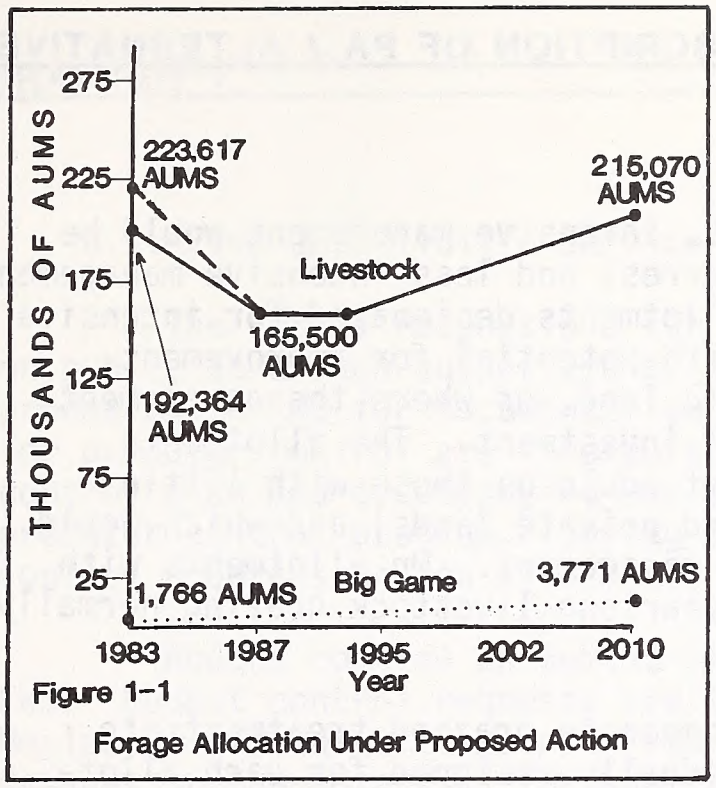


Figure 1-1

Forage Allocation Under Proposed Action

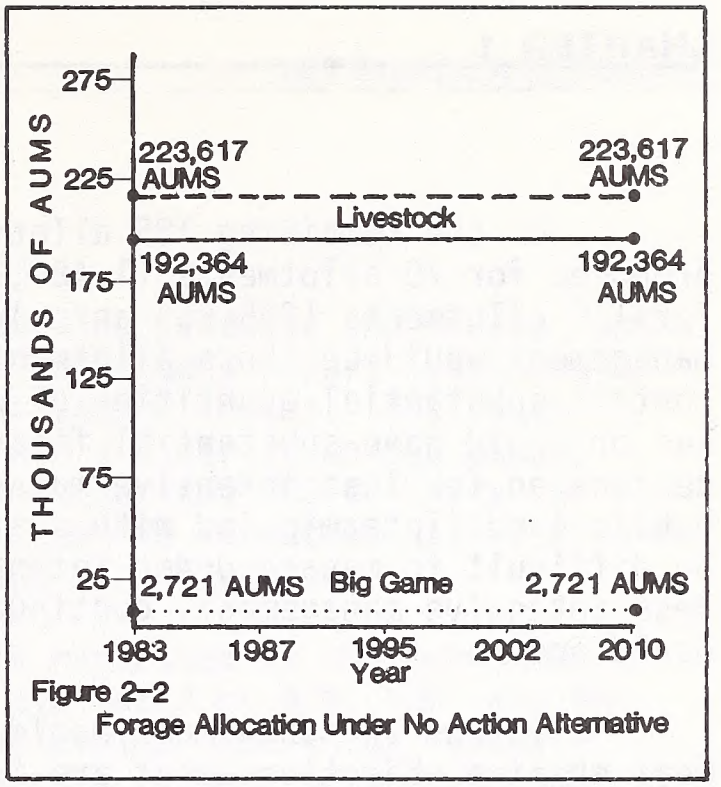


Figure 2-2

Forage Allocation Under No Action Alternative

---- Administrative adjustment from preference.

——— Actual adjustment in livestock use from 5-year average licensed use.

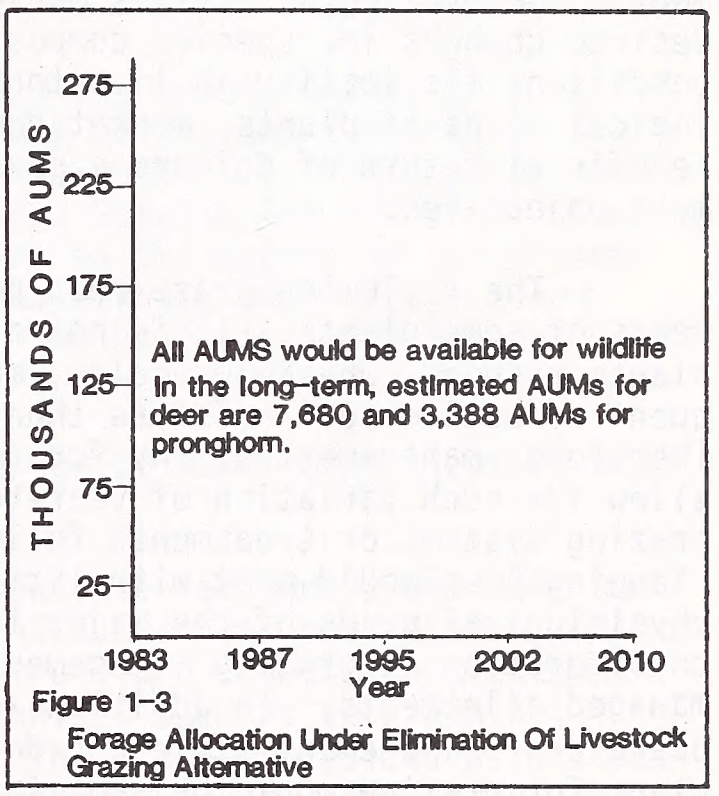


Figure 1-3

Forage Allocation Under Elimination Of Livestock Grazing Alternative

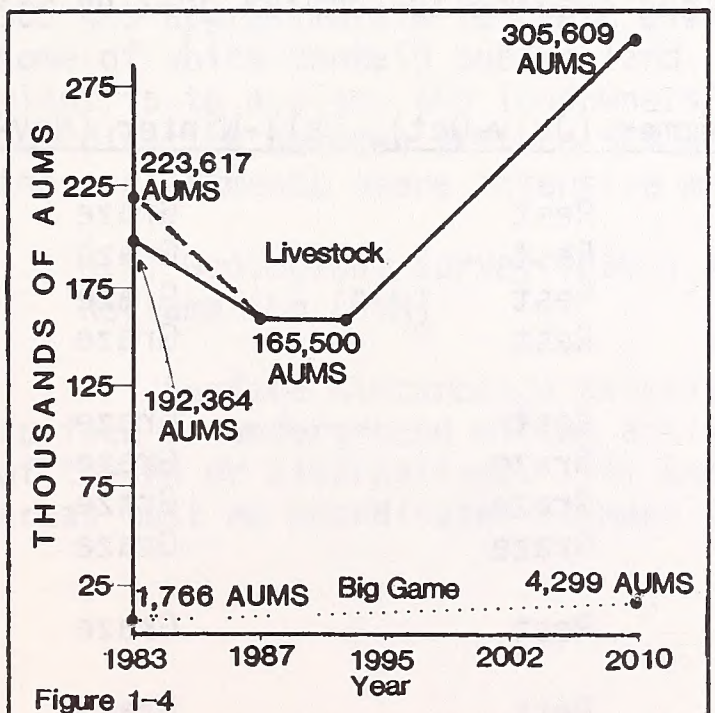


Figure 1-4

Forage Allocation Under Maximization Of Livestock Forage Production Alternative

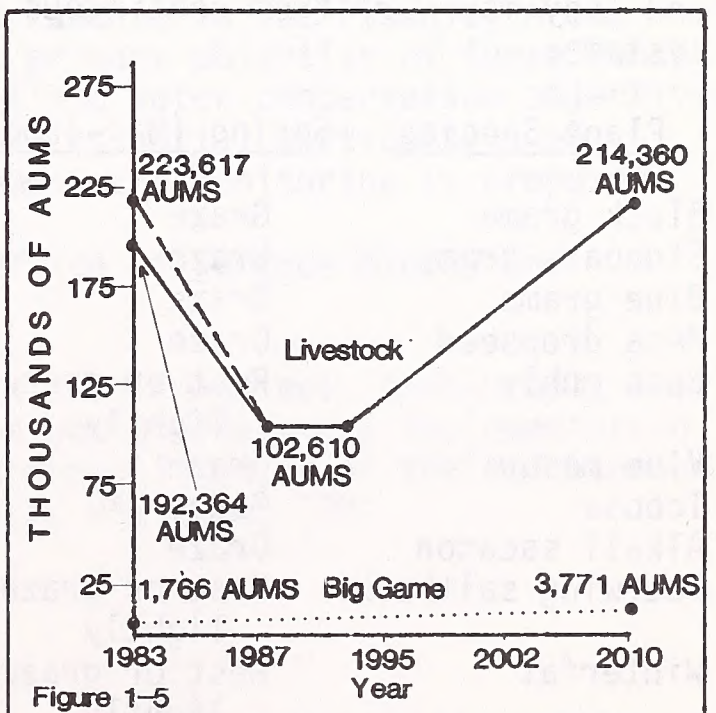


Figure 1-5

Forage Allocation Under Enhancement Of Other Resource Values Alternative

SOURCE: BLM Las Cruces District EIS Team Files , 1980

On the remaining 185 allotments, intensive management would be proposed for 70 allotments (1,486,772 acres) and less intensive management for 115 allotments (265,655 acres). Allotments designated for intensive management would be those allotments with potential for improvement, contain substantial quantities of public land, or where the government has or would have substantial financial investment. The allotments designated for less intensive management would be those with little public land (intermingled with state and private lands) and which would be difficult to manage under intensive management. On allotments with less intensive management, continuous yearlong livestock grazing normally would occur.

Intensive management would incorporate grazing treatments to meet grazing objectives that are individually designed for each allotment. The grazing objectives would include, but would not be limited to desired changes in, species composition, improved range and watershed condition, flexibility in livestock operations, accomodation of physiological needs of plants, market demand situations, and to realize a beneficial return of dollars expended in implementing the overall management objectives.

The following graze/rest periods are a guide to show physiological needs of some plants. It is not a grazing system. Desert rangeland plants respond, physiologically, more to precipitation timing and subsequent effective soil moisture than to any calendar month or date. Therefore, management of any forage species must be flexible enough to allow for such variation of year-to-year precipitation patterns. Thus grazing systems or treatments following a set calendar schedule in the Planning Area would meet with little or no success. The following physiological needs of the major forage plants would be taken into consideration as grazing management schemes are developed for intensively managed allotments. In addition to the basic physiological needs, the operators' management style and desires would be considered. The resulting plans for grazing would be individually developed for these allotments and they may vary from continuous yearlong grazing to complex grazing systems.

Plant Species	Spring (Mar-June)	Summer (July-Oct)	Fall-Winter (Nov-Feb)
Black grama	Graze	Rest	Graze
Sideoats grama	Graze	Rest	Graze
Blue grama	Graze	Rest	Graze
Mesa dropseed	Graze	Rest	Graze
Bush muhly	Rest or graze lightly	Rest	Graze
Vine mesquite	Graze	Graze	Graze
Tobosa	Graze	Graze	Graze
Alkali sacaton	Graze	Graze	Graze
Fourwing saltbush	Rest or graze lightly	Rest	Graze
Winterfat	Rest or graze lightly	Rest	Graze

U.S. Fish and Wildlife Service (FWS)

The FWS is responsible for conducting predator and rodent control on public land when authorized by BLM. Permittees report instances of predation to FWS for documentation of livestock losses. All requests for predator control are incorporated into a district animal damage control plan and accompanying map which authorizes FWS to carry out a predator control program. During 1980, the FWS conducted active predator control programs on ten allotments in the Planning Area.

Rodent control on public land is requested by the permittee to FWS. Rodent control requests are then evaluated by BLM, FWS, and New Mexico Department of Game and Fish to determine vegetation resource damages or the potential for health hazards. Rodent control on public land is authorized by BLM with a request to the FWS for control services.

Consultation with the FWS is required before any project initiated or approved by BLM is implemented that may affect any threatened, endangered, or sensitive plant or animal or their habitat. This consultation is required by Section 7 of the Endangered Species Act of 1973. Consultation may be formal or informal, depending on the degree of disturbance caused by the projects. This EIS is considered a major project and formal consultation has been initiated. No biological opinion has been rendered at this time. (See Appendix D-5 for letters of consultation.)

Soil Conservation Service (SCS) and Agricultural Stabilization and Conservation Service (ASCS)

The ASCS and SCS provide assistance to landowners who want to improve their private rangelands. The ASCS provides cost-sharing of fences, water developments, erosion control, and vegetation treatment projects while the SCS provides the technical support in planning, surveying, and designing the projects. The SCS also assists permittees in designing ranch plans for ranches on private land. Presently, the SCS has approximately 15 ranch plans on ranches in the Planning Area, some of which contain public land. The primary objective of these ranch plans is to achieve the landowners' soil and water conservation objectives. Coordination between BLM and SCS would be essential particularly on those allotments where intensive management and monitoring is proposed.

U.S. Geological Survey (USGS) and Office of Surface Mining and Reclamation (OSM)

Surface disturbance associated with oil and gas, geothermal, and surface or underground mining activities would affect the implementation of the PA or alternatives. The use and rehabilitation of these disturbed areas must be coordinated between the BLM, USGS, and OSM.

Although long-term average precipitation has little value in evaluating rangeland condition, the following shows the long-term average precipitation and the annual precipitation for the years 1975-1979 for some weather stations within the Planning Area (U.S. Department of Commerce):

Station	Long-Term Average	1975	1976	1977	1978	1979
NMSU	7.89	8.08	7.74	8.72	14.98	9.37
Jornada	8.47	8.92	11.14	7.32	15.45	6.11
Caballo	8.32	11.98	4.97	7.72	10.92	11.08
T or C	8.33	9.28	11.40	5.12	13.40	12.18
Hillsboro	10.80	17.24	11.66	14.51	15.13	15.41
Winston	11.59	16.90	11.03	13.94	13.74	13.28

Topography

The Planning Area is within the Basin and Range physiographic province. Typical topographic features include rugged and steep fault block mountain ranges, broad basins, and gentle volcanic land forms. Perhaps the most dominant topographic element is the Rio Grande Valley which extends about 130 miles through the Planning Area. Geologically, the major basins include the Mesilla Bolson, Palomas and Engle Basins, and the extensive Jornada del Muerto. The principal mountain ranges are the San Andres, Organ, Caballo, Cuchillo and the East and West Potrillos.

Elevations in the Planning Area range from a low of about 3,730 feet in the southern Rio Grande Valley to a high of about 8,990 feet at the summit of Organ Needle in the Organ Mountains. More typical elevations in the area range from 4,100 feet to 5,200 feet.

Geology

The dominant geological element in the Planning Area is the Rio Grande rift. This rift zone, which extends from the San Luis Valley near Alamosa, Colorado to the El Paso, Texas vicinity, is essentially a tensional or pull-apart feature in the earth's crust.

Volcanic rocks are widespread in the Planning Area, particularly in the western portion. Cinder cones and lava flows are especially prevalent in the southwestern portion of the Planning Area. Intrusive igneous rocks occur in the Organ, Dona Ana, Robledo, and Cuchillo Mountains.

TABLE 2-10

ESTIMATED GAME USE OF STANDARD HABITAT SITES

Standard Habitat Sites	Estimated Big Game per Section in Planning Area from Observation Records[a]		Estimated Pounds Annual Production per Acre, Desirable & Intermediate Shrubs	Percent of Upland Game Bird Recorded by Observations in SHS's[b]		
	Deer	Pronghorn		Mourning Dove	Scaled Quail	Gambel's Quail
Riparian	1.4	0	ND	4	8	39
Pseudoriparian	3.9	0.1	8	84	3	46
Grass rolling upland	0.3	0.4	14	1	15	7
Grass flat	0.1	0.1	86	1	1	0
Grass mountain	1.9	0.3	13	0	5	0
Mixed shrub rolling upland	1.6	T	28	2	17	1
Mixed shrub mountain	2.1	0	31	1	7	0
Mesquite rolling upland	0	0.2	33	3	21	1
Half-shrub rolling upland	0.1	0	13	1	1	7
Pinyon-juniper grass mountain	2.3	T	19	0	0	0
Malpais	ND	T	18	ND	ND	ND
Creosote rolling upland	0.1	T	8	3	18	0
Creosote breaks	0.1	0	9	0	2	0
Mesquite sand dune	T	0	32	0	1	0

Source: BLM Las Cruces District EIS Team Files, 1980.

Notes: a/Bias is probable in observations. Deer are more easily observed in grass mountain habitats than in mixed shrub mountain habitats. T = Estimates of less than 0.1 animals per section, but with recorded use. Estimates are based on 1,500 deer and 500 pronghorn over the Planning Area, or an additional 137 deer outside the population areas shown on Map 2-2. The above provides a measure of relative use of Standard Habitat Sites by big game and game birds.

b/Observations were recorded during the inventory as explained on page D-9. The number of observations of each species recorded for each SHS was divided by the total observations for each species to obtain percentages of observations by SHS.

WATER RESOURCES

Surface Water

The SRGPA includes parts of four major surface water drainage basins as recognized by the New Mexico State Engineer (Map 2-3). Three of the four basins are closed--the Jornada del Muerto, Tularosa (Hueco), and Mimbres (including the Las Uvas Valley). The closed basins have no surface drainage outlets and are usually dry, but runoff water will accumulate in lowland areas for short durations during periods of high rainfall. The Rio Grande Basin is an open basin with the north-south running river being the major perennial water within the Planning Area. The river channel and flow are completely controlled by dams, levees, and canals.

The Elephant Butte and Caballo Dams (in the Rio Grande Valley) provide large surface water storage reservoirs for irrigation, electric power generation, flood control, and recreational purposes. Storage capacities of the Elephant Butte and Caballo reservoirs are 2,222,620 and 344,000 acre-feet, respectively. The dams are under the jurisdiction of the Bureau of Reclamation, whereas allocation of waters stored in Elephant Butte and Caballo reservoirs is governed by the Rio Grande Compact, a 1906 treaty with the Republic of Mexico, and contracts with the Elephant Butte Irrigation District, New Mexico and the El Paso County Water Improvement District No. 1, Texas.

Tributaries to the Rio Grande are ephemeral, flowing only in times of storm events. At higher elevations, short stretches of stream flow occur below springs, but the water seeps back into the ground long before reaching the Rio Grande. Since runoff only occurs periodically (during storm events) the amount of runoff which reaches the Rio Grande is difficult to measure. Watersheds dominated by grass vegetation have lower estimated runoff rates than watersheds of equal size dominated by creosote vegetation, assuming similar soils and equal storm frequencies and durations (Earth Environmental Consultants Inc. 1979).

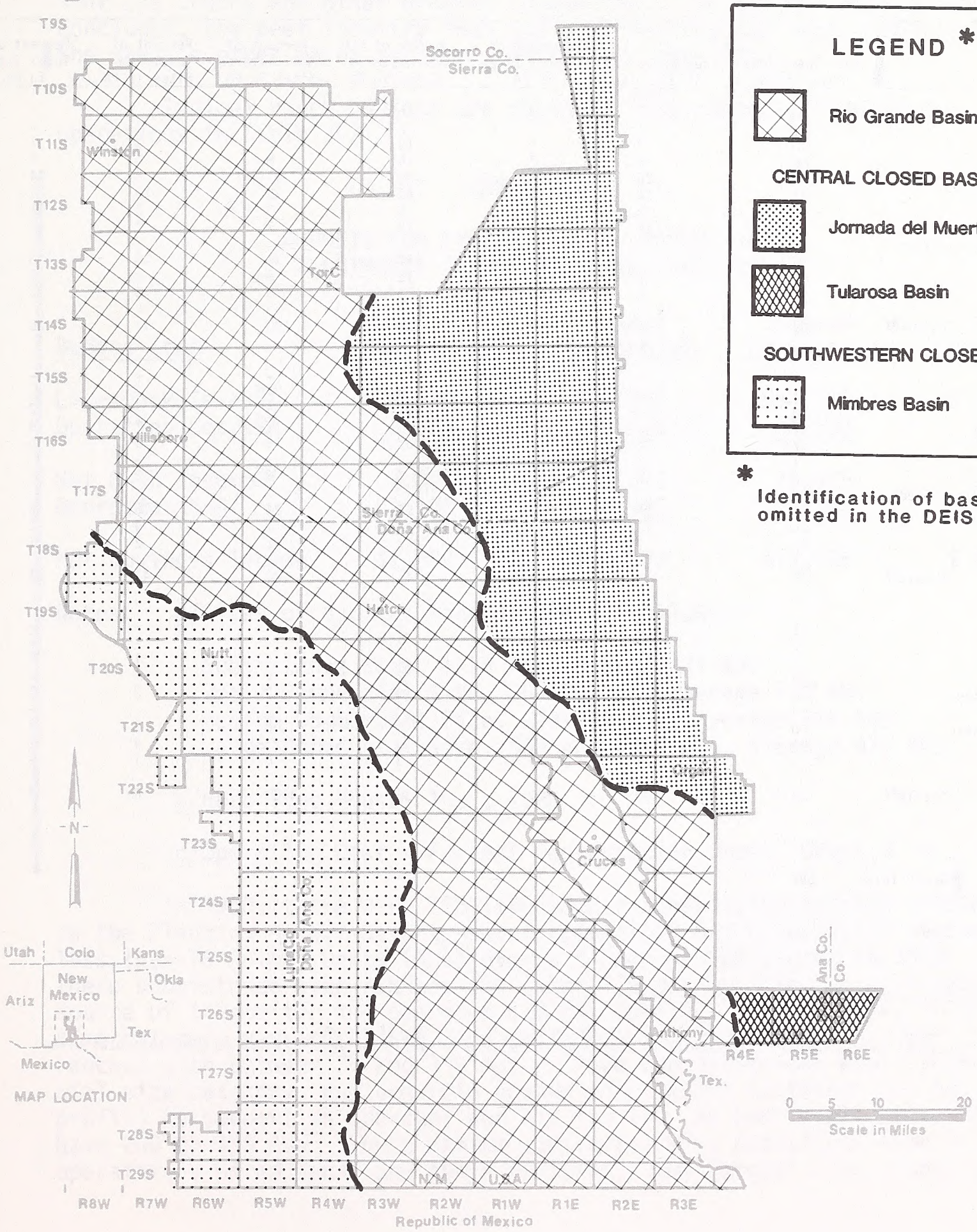
Eleven major floodwater retarding structures have been constructed on major ephemeral watersheds throughout the Planning Area. Most were the result of the Watershed Protection and Flood Prevention Act (Public Law 566) passed by Congress in 1954 which gave the Soil Conservation Service (SCS) authority to provide technical and financial assistance to local organizations in planning and carrying out the watershed projects. In addition to the major projects, 411 private, state, and federally-owned earthen reservoirs (with less than 10 acre-feet water capacity) have been constructed primarily for livestock and wildlife waters. The reservoirs contain water for varying lengths of time depending primarily on soil and watershed conditions.

Samples taken of flowing runoff water (in arroyos) and impounded water (in dirt tanks) were analyzed and found to conform with federal EPA criteria for livestock and wildlife waters and for use as irrigation waters (Earth Environmental Consultants Inc. 1979). Federal criteria

SURFACE-WATER DRAINAGE BASINS

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Las Cruces District — Las Cruces N. M.

SOUTHERN RIO GRANDE PLANNING AREA



LEGEND *

- Rio Grande Basin

CENTRAL CLOSED BASINS

- Jornada del Muerto
- Tularosa Basin

SOUTHWESTERN CLOSED BASINS

- Mimbres Basin

* Identification of basins were omitted in the DEIS

SOURCE: New Mexico State Engineer 1980 and BLM Las Cruces Planning Documents

MAP.2-3

TABLE 2-14

CULTURAL RESOURCE AFFILIATION IN THE PLANNING AREA (PA) BY PLANNING UNIT (PU)

Affiliation	Total Number of Sites in PU	Percent of all Sites in PU	Percent of Total Sites in PA	Number of BLM Administered Sites in PU	Percent of Administered Sites in PU	Percent of Total BLM Sites in PA	Percent of[b/] Total Sites in PA
Caballo							
Paleo Indian	3	1	-	2	-	1	-
Archaic	10	2	1	10	2	3	1
Pithouse (Mogollon)	46	11	7	15	8	4	2
Pueblo (Mogollon)	105	26	15	30	17	8	4
Indeterminate Mogollon	97	24	14	46	25	13	7
Historic Indian	7	2	1	6	3	2	1
Historic Non-Indian	50	12	7	13	7	4	2
Ethnic Scatter - Undetermined Affiliation	86	21	13	57	31	16	8
Indeterminate	31	9	5	15	8	4	2
Multicomponent	31	8	5	12	6	3	2
Totals[a/]	408	100	59	181	100	51	26
Las Uvas							
Paleo Indian	1	-	-	1	-	-	-
Archaic	1	-	-	0	-	-	-
Pithouse (Mogollon)	20	9	3	12	5	3	2
Pueblo (Mogollon)	42	18	6	26	11	7	4
Indeterminate Mogollon	57	25	8	35	15	9	5
Historic Indian	1	-	-	1	-	-	-
Historic Non-Indian	18	8	3	7	3	2	1
Ethnic Scatter - Undetermined Affiliation	81	35	12	55	24	15	8
Indeterminate	26	11	4	15	7	4	2
Multicomponent	17	7	2	7	3	2	1
Totals[a/]	230	100	33	145	100	41	21
Organ							
Paleo Indian	1	2	-	1	2	-	-
Archaic	0	-	-	0	-	-	-
Pithouse (Mogollon)	6	12	1	4	8	1	1
Pueblo (Mogollon)	9	18	1	2	4	1	-
Indeterminate Mogollon	10	20	1	6	12	2	1
Historic Indian	1	2	-	0	-	-	-
Historic Anglo Hispanic	8	3	1	4	8	1	1
Indeterminate	21	20	3	16	33	4	2
Multicomponent	7	14	1	3	6	1	-
Totals[a/]	49	100	7	30	100	8	4
Grand Total	687			356			

Source: BLM Las Cruces District Office Planning Documents, 1980.

Notes: a/Because of the presence of multicomponent sites the totals for number of sites do not add up.
b/This column represents the percent of BLM administered sites by cultural affiliation for each PU compared with the total sites in the PA exclusive of any particular administration.

ranching operations. In most instances, they have simply attracted capital and labor away from livestock ranching and created pressures for conversion of pasture and rangeland to more intensive uses, especially near Las Cruces and other growing communities. As one New Mexico report concluded, the beef industry "has had a marked decline when compared to the state's other major sectors" (Resta and Zink 1978).

Typical ranch budgets are shown for four sizes of cow-calf operations in Table 2-21.

TABLE 2-21

BUDGETS FOR TYPICAL CATTLE RANCHES WITH ALLOTMENTS IN THE PLANNING AREA, 1978

Budget Item	Subsistence[a/]	Small Commercial	Medium Commercial	Large Commercial
Livestock Sales[b/]	$6,575	$30,300	$64,510	$187,600
Operating Costs[b/]	3,555	16,405	34,595	82,495
Net Cash Income[b/]	3,020	13,895	29,915	105,105
Depreciation[c/]	1,138	4,922	10,379	14,025
Net Business Income	$1,882	$ 8,973	$19,536	$ 91,080

Notes: a/Sizes of typical ranches are as follows:

Subsistence Size, 1-74 AUs, average 24 AUs
Small Commercial Size, 75-199 AUs, average 123 AUs
Medium Commercial Size, 200-499 AUs, average 316 AUs
Large Commercial Size, 500 and more AUs, average 870 AUs

b/Harbridge House, Inc., 1980

c/Operating Cost x Percent Depreciation from: Gray, J. R., et al.

In 1980, there were 153 livestock ranches using grazing allotments in the Planning Area. Seventy-seven operations had herds which averaged less than 75 Animal Units (AUs) over a 5-year period ending in 1980. These subsistence size ranches are generally not operated as a primary source of income for the operator and his family. All operators in this size category have non-ranch jobs or income sources. There are 28 ranches with between 75 and 199 AUs. These constitute the small commercial size category, and generate enough cash income (although not business profit) to support an operator and his family. An additional 26 ranches have 200 to 499 AUs. These medium commercial size operations support an operator, a hired hand, and their families. The largest size category

comprises 22 ranches with 500 or more AUs. These operations have an average of two hired hands.

In 1980, all ranch size categories in the Planning Area had total livestock sales estimated at $7.2 million as shown in Table 2-22.

TABLE 2-22

LIVESTOCK SALES AND RANCH INCOME FROM THE PLANNING AREA, 1978

Budget Item	Subsistence[a/]	Small Commercial	Medium Commercial	Large Commercial	Total
Livestock Sales	$506,160	$878,730	$1,677,215	$4,127,160	$7,189,265
Net Cash Income	232,575	402,925	777,725	2,312,305	3,725,530
Net Business Income	144,914	251,244	507,936	2,003,760	2,907,854

Source: Harbridge House, Inc., 1980.

Notes: a/Sizes of typical ranches are as follows:

Subsistence Size, 1-74 AUs, average 24 AUs
Small Commercial Size, 75-199 AUs, average 123 AUs
Medium Commercial Size, 200-499 AUs, average 316 AUs
Large Commercial Size, 500 and more AUs, average 870 AUs

Total cash income generated by these sales was over $3.7 million, of which an estimated more than half or $1.9 million was treated as personal income by ranch operators.

The 153 ranches utilizing public land in the Planning Area vary not only by size, but also by the extent of their dependency on grazing permits to provide forage for their herds. In general, the smaller ranches are relatively more dependent on public land. Ranches in the subsistence size category, averaging 24 AUs, relied on permits for 70.5 percent of their forage. The small commercial size operations, averaging 123 AUs, were dependent for 63.6 percent. The medium commercial size ranches, averaging 316 AUs, used public land to support 59.8 percent of their herds. Only the large commercial size operators had greater resources in their privately-owned and state-leased lands; these ranches averaged 870 AUs in size and were dependent for 40.7 percent of that total.

The significance of grazing permits is financial as well as operational. Most ranchers regularly borrow to cover their operating costs; many incur significant long-term debt in order to make improvements and purchase machinery. In 1980, financial institutions were valuing ranches on the basis of the AUMs they controlled, including AUMs dependent on public land. This loan valuation exceeded $21.9 million in 1980. The actual extent of indebtedness among ranch operators is unknown.

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In 1980, approximately 2,846 visitor days resulting from big game hunting on public land were recorded in the SRGPA. While big game hunting is not considered a major source of economic activity for the Planning Area, expenditures attributed to deer and pronghorn hunting on public land contributed an estimated $69,573 to the regional income. This amount is based only on expenditures attributed to hunting, excluding the cost-of-living.

Social Conditions

More than half of the land in the SRGPA is under BLM's jurisdiction, therefore there is a great interest among the public concerning the decisions of the agency, especially as the extent and rate of urbanization increases. In addition, public land is perceived as a basic resource upon which a range of not only economic activities, but public services, recreational activities, and community lifestyles depend. This perception appears to increasingly translate into pressure to open public land near urban areas to alternative uses.

Some of the permit holders are third and fourth generation families on allotments in the Planning Area and thus identify ranching activities with their family history. These families, who represent some of the early pioneers of southern New Mexico, often operate their

litter accumulation are needed before fire occurrence increases. Long-term impacts on the vegetative resource resulting from increased fire occurrence would vary depending upon plant species. Populations of plants which are susceptible to damage from fire would be reduced or eliminated. Some of the species which appear to be least tolerant to fire include black grama, bush muhly, barrel cactus, ocotillo, and sotol. Growth of plant species which are benefited by fire would increase. All surface protecting litter would be destroyed and lost until future accumulations occurred.

The projected changes in production and percent of the total ground cover comprised of desirable and intermediate forage species and percent vegetative ground cover are shown in Table 3-5. The projected changes in acres in each ecological condition class and forage value class which would occur as a result of the projected changes in species composition are shown in Table 3-6.

The projected changes are based on the potential for improvement of each SWA based on the existing species composition and the effect of eliminating grazing use.

Threatened or Endangered Plant Species. All adverse impacts to threatened or endangered plant species from livestock grazing would be removed under this alternative. Any beneficial impacts favoring the growth and reproduction of threatened or endangered plants would also be removed.

Summary. Under the ELG Alternative, the acres in each ecological condition class would change from 1,453,369; 660,347; and 32,318 for poor, fair, and good respectively to 639,198; 1,193,949; and 312,887. The acres in each forage value class would change from 1,196,844; 668,885; and 280,305 for poor, fair, and good respectively to 696,501; 1,038,047; and 411,486. Average production of the desirable and intermediate forage species would increase on the grass type vegetation from 270; 375; and 483 pounds per acre on poor, fair, and good condition rangeland respectively to 531; 569; and 669 pounds per acre. Average production of the desirable and intermediate forage species on brush type vegetation would increase for the three condition classes from 129; 258; and 300 to 340, 404; and 410 and on the pinyon-juniper type from 337; 372; and 742 to 542; 596; and 879 pounds per acre. The percent of the total vegetative ground cover comprised of desirable and intermediate forage species would increase on grass type vegetation from an average of 41; 56; and 68 for poor, fair, and good condition to 78; 82; and 83 percent respectively. The increase on brush type vegetation would be from 28; 35; and 36 to 53; 59; and 54, and on the pinyon-juniper type from 46; 58; and 62 to 68; 81; and 85 percent respectively for poor, fair, and good condition.

Maximization of Livestock Forage Production (MLFP) Alternative

Under the MLFP Alternative, vegetation would be disturbed or destroyed at the location of rangeland improvements. This would amount to 1,067 acres in the short-term and 162 acres occupied by the improvements in the long-term.

36 to 49; 55; and 50, and on the pinyon-juniper type from 46; 58; and 62 to 63; 76; and 80 percent respectively for poor, fair, and good condition.

Under the EORV Alternative, vegetation would be disturbed or destroyed on 826 acres in the short-term and 132 acres in the long-term as a result of the proposed rangeland improvements and the associated construction activities.

Soils

Two kinds of impacts to the soil resource would result from the PA and alternatives. Direct impacts such as those resulting from construction of rangeland improvements (dirt tanks, wells, fences, pipelines, erosion dikes, etc.), whether short-term or long-term impacts, are relatively easy to determine. Indirect impacts (e.g., changes in grazing intensities which alter the vegetative resource, runoff volumes, and eventually erosion) are much more difficult to assess and quantify.

When assessing impacts for such large areas as the SRGPA, several assumptions must be made for each of the units (range sites) discussed:

1. Areas of each range site contain very similar soil types, vegetative types, percentage ground covers, topography, land use, and erosion condition.

2. Predicted changes in vegetative ground covers (taken from Appendix B-6) apply to all areas of each range site.

3. No changes in sediment yields would occur where there is no expected changes in runoff rates from the areas.

4. Expected changes in livestock numbers (land use) would be uniform throughout the Planning Area.

Proposed Action (PA)

Under the PA, the 14 percent reduction in livestock numbers from the present 5-year average would reduce sediment yields from some range sites as much as 13 percent in the long-term. Table 3-11 shows the range sites which would have decreased sediment yields under the PA and alternatives.

Under the PA, 56.2 percent of the Planning Area (1,206,071 acres) will experience less than 10 percent reduction in yearly sediment yields. These areas include the sandy, shallow sandy, gravelly sand, deep sand, malpais, gravelly loam, clayey, bottomland, and salt flats range sites of the Southern Desert, Subresource Area SD-2, and the gravelly, loamy, sandy, clayey, and bottomland range sites of the Western Plateau, Subresource Area WP-3. (See Map 2-1 for locations of the Major Land Resource Areas.)

The remaining 43.8 percent of the Planning Area (939,963 acres) will experience between 10 and 15 percent reduction in sediment yields. These areas include the hills, gravelly, and loamy range sites of the Southern Desert, Subresource Area SD-2, and the hills, breaks, and loamy range sites of the Western Plateau, Subresource Area WP-3.

The construction of the proposed rangeland improvements would disturb soils on 734 acres in the short-term. Additional acreages of soil disturbance caused by livestock concentrations around new waters would occur (especially on fine-textured soils). Soil erosion would increase on these disturbed areas because of reduced infiltration rates and moisture capacities of the disturbed soils, but erosion rates would be insignificant to total sediment produced from any given area.

The proposed chemical treatments on 29,772 acres of mesquite dune areas in the sandy and deep sand range sites could increase wind erosion in the short-term on these areas because of the reduced shrub canopy cover. The amount of soil lost from these sites would decrease once vegetation becomes reestablished because of the decreased amount of exposed soil. Studies on sprayed mesquite dune areas on the Jornada Experimental Range (Herbel et al, 1972) showed approximately 81 percent less wind blown soil collected 600 feet within sprayed areas as compared to adjacent unsprayed areas. Similar results are expected where spraying is conducted on public land. A leveling of the dunes and deposition of soil in the interdune areas could also be expected once the mesquite shrubs have been successfully reduced or eliminated.

Chemical treatments of 9,705 acres of creosote in gravelly and gravelly loam range sites could increase soil erosion by water in the short-term, but when vegetation becomes reestablished, these sites would not contribute a significant amount of sediment to any of the surface water basins.

Mechanical treatments on 600 acres of cholla on loamy sites of the Western Plateau MLRA would disturb the soil in areas where the plants are removed until vegetation becomes reestablished. The changes in soil erosion rates as a result of these activities would not be significant.

Summary. Under the PA, soils would be disturbed on 114 acres in the long-term where range land improvements are constructed under the PA. Sediment yields would be reduced as much as 13 percent on some range sites. However, this would vary from range site to range site. Soil erosion by wind would be expected to decrease on 29,772 acres of mesquite spray areas, but cannot be quantified.

No Action (NA) Alternative

Under the NA Alternative, areas would continue to deteriorate where the soil resource is deteriorating and would continue to improve where the soil resource is improving (assuming no major changes in climate, stocking rates, construction activities, etc.).

Malpais. The limited number of sites reviewed which were in good or fair ecological condition makes predictions difficult for this SHS. Production of desirable and intermediate shrub species would decline from the estimated present 18.1 to 16.1 pounds per acre. No comparison data are available for summer bird or small mammal diversity. The tendency in this SHS with improvement in ecological condition would seem to be a decline in shrubs and an increase in grass.

Creosote Rolling Upland. Based on the information reviewed, improvement in this SHS by one ecological condition class would provide a very slight increase in structural diversity and overall plant species diversity, implying that only minor changes would occur in the value of the creosote rolling upland habitat for wildlife populations. Summer bird diversity would decline slightly, while small mammal diversity would increase. Production of desirable and intermediate shrub species would increase from about 8 to about 9.2 pounds per acre. The improvements projected above would imply better habitat for scaled quail. This SHS was second in percentage of scaled quail observations during the inventory.

An exception to the above expected changes in the creosote rolling upland SHS would be the land proposed for chemical treatment, less than 1 percent of the SHS. Although there is little data available on which to base expected effects on wildlife populations, there would be a decrease in composition of creosote and an increase in plant species diversity. Increased ground cover could increase use of the SHS by scaled quail. Areas that would be chemically treated, depending on the effectiveness of treatments, would possibly be converted to a grass rolling upland SHS, the habitat preferred by pronghorn (American Ag International, Inc. 1979). However, the size and locations of the proposed treatment areas would generally preclude significant increases in available pronghorn habitat.

Creosote Breaks. Creosote is believed to be a dominant plant in the climax vegetation on this habitat type, and the possibility of significant improvement in this SHS would be questionable due to past soil erosion (American Ag International, Inc. 1979). Production of desirable and intermediate shrub species would increase from about 9 to 10.4 pounds per acre under the PA which is insignificant. Summer bird diversity would apparently decline significantly with improvement in ecological condition, according to the inventory data.

Mesquite Sand Dunes. Comparison of poor ecological condition and fair ecological condition mesquite sand dune habitat sites indicate that under the PA there would be a substantial increase in the structural diversity in the 0-1 foot level, some reductions in the 1-7 foot level, and a decline in overall structural diversity. The comparisons also imply a decline in plant species diversity. Production of desirable and intermediate shrub species would decline from about 32 pounds per acre to about 28.9 pounds per acre. Even if protected from grazing, the mesquite sand dune SHS would not change appreciably for a long period of time, precluding the changes predicted above (American Ag International, Inc. 1979).

The majority of the proposed chemical treatment of mesquite with Dowco 290 or Graslan would occur in the mesquite dune SHS. Mesquite kill in the treatment areas would vary, but it would be unlikely to change the SHS from a mesquite dune aspect by 2010. However, dune leveling would occur and interspace ground cover would increase to provide better habitat for grassland associated species. Where mesquite treatment areas are in or adjacent to occupied pronghorn habitat, the treatments could result in improved habitat conditions for pronghorn. The chemical treatments would apparently result in improved ecological condition. In this SHS, both summer bird diversity and small mammal diversity would increase with improvement in ecological condition. The inventory data indicates that scaled quail populations would decline with an improvement in ecological condition.

Big Game. An analysis of the production of desirable and intermediate shrub species by SHS indicates that the expected AUM allocations as shown in Figure 1-1 for both livestock and wildlife would be more than sufficient to provide for optimum populations of deer and pronghorn in the short-term. However, analysis also indicates that the long-term AUM allocations shown on Figure 1-1 would not provide sufficient forage for optimum big game populations. The analysis was based on production of desirable and intermediate shrubs and did not include considerations such as preference or availability. Only the proposed monitoring program would provide the final answer. The primary reason why the long-term allocation would be insufficient is the reductions in shrub production in some SHS's with improving ecological condition. Comparison of vegetation data between poor, fair, and good ecological condition sites for the pinyon-juniper grass SHS indicates that desirable and intermediate shrub production is 28.18 pounds per acre in good condition, 13.29 pounds per acre in fair condition, and 24.34 pounds per acre in poor condition. The lowest production is in fair condition, and under the PA, a higher percentage of the pinyon-juniper grass SHS would be in fair condition than at present, which would result in the lowest production of desirable and intermediate shrubs. Although the sample size of good condition sites is small, the inventory data does suggest that in two major deer habitats, mixed shrub mountain and pinyon-juniper grass mountain, big game forage production would decrease under the PA. The above discussion does not include considerations of big game utilization of forbs, which are often heavily utilized. If adequate forb production data were available, the long-term big game allocations should be sufficient for optimum numbers.

Other limiting factors may prevent optimum populations from being realized (see assumption 6). Pronghorn would be unlikely to reach optimum populations (Table 3-14) because of limited amounts of preferred habitat types within the herd unit areas (Map 2-2) and a probability of continuing brush density increases in marginal habitats (American Ag International, Inc. 1979), even with implementation of the PA. Buechner (1950) states that low brush or mesquite "trees" are not a serious handicap for pronghorn. However, Yoakum (1978) states that rangelands

Generally, water developments would benefit deer and pronghorn, provided new waters are not located in a site which could cause livestock concentrations in habitats which provide cover or other important habitat components.

Raptors. The PA would change some of the half-shrub rolling upland, mesquite rolling upland, and creosote rolling upland habitat sites toward a grassland aspect and would reduce the small mammal prey base for raptors. The small mammal diversity in the rolling upland landform would increase. Increased ground cover could also reduce the hunting efficiency of raptors. It is unknown whether the change of one ecological condition class would reduce prey populations enough to reduce raptor populations. (A supposed increase in wildlife diversity with an upward change in ecological condition could indicate that prey specialist among raptors could benefit.) Snyder (1975) states that food supplies and nesting sites are important limiting factors for raptors, and Oldendorff et al. (1980) report on several artificial raptor perch projects being beneficial to raptors. A combination of available prey and yuccas for nest and perch sites are believed responsible for the high wintering raptor populations occurring especially in the Las Uvas Planning Unit. The PA could help maintain yuccas in the Las Uvas habitats (Warnock 1970). The effect of Graslan and Dowco 290 on yuccas is unknown, however, based on observation of chemical treatment areas on the Jornada Range, young yuccas would likely be reduced. The small acreage proposed for chemical treatment could result in improved raptor habitat by creating edge.

Threatened or Endangered Species. Table 2-9 summarizes occurrences or suspected occurrences of federal and state listed wildlife species in the Planning Area by SHS. Of the 19 species listed, 11 (including the olivaceous cormorant, Mississippi kite, black hawk, bald eagle, caracara, red-headed woodpecker, Bell's vireo, Sonora Mountain king snake, Mexican tetra, bluntnose shiner, and silvery minnow) are reliant on riparian or aquatic habitats. The majority of riparian habitat in the Planning Area is on Caballo and Elephant Butte Lakes. The impacts of the PA on the riparian habitat at the lakes is difficult to analyze because of the reliance on monitoring and uncertainty of monitoring of riparian habitat. If monitoring is conducted by range site without special studies for riparian sites, overuse of riparian sites would occur because of concentration of livestock in the riparian areas. The PA would probably result in a continuing decline in habitat for some of the above threatened or endangered species, unless the riparian treatment described in Chapter 1 (p. 1-9) is adopted.

Three endangered species which are associated with grass types (peregrine falcon, Baird's sparrow, and McCown's longspur) could be benefited by the PA. Based on information given by Belfit (1979), habitat could improve for the Gila Monster (except riparian habitats) and Trans-Pecos ratsnake. The chemical vegetation treatments would essentially cause a temporary loss of habitat for the Trans-Pecos ratsnake, but increase the edge effect between shrub and grass types which appear

to be abundant in habitats where this species is abundant (Belfit 1979). Sightings of wintering peregrine falcons have recently been reported in the Las Uvas Planning Unit (BLM files). The concentration of chemical pesticide residues in peregrine prey has been widely credited with peregrine declines. Information submitted to BLM by the manufacturers of both herbicides proposed for use indicate that no such problems would occur from the proposed chemical treatments. The PA would be beneficial to endangered fish species (Table 2-9) in the Rio Grande by reducing sediment load in the river.

Summary. With the exception of the riparian SHS, wildlife habitat and wildlife species would improve in diversity under the PA. Although the forage allocation to big game would be adequate for present and optimum populations (by the year 2010), the big game species may be limited by other limiting factors.

No Action (NA) Alternative

Trend data obtained during inventory of the Planning Area are inadequate to determine the impacts of the NA Alternative. The trend data that is available seems to indicate that some improvement and some decline are occurring in ecological condition. For analysis of the NA Alternative it is assumed that improvement and declining trends presently occurring are equal across the Planning Area in each SHS.

Riparian. The majority of riparian habitat sites in the Planning Area are presently in poor condition, meaning that no lower condition class is possible. However, a further reduction in points allowed for vegetation composition under the ecological condition rating system would be possible if the riparian grazing treatment (discussed in Chapter 1) is not adopted because of the tendency of livestock to concentrate in riparian areas. The NA Alternative would not provide any opportunity to reduce waterfowl depredations in the Las Uvas and Hatch Valleys.

Pseudoriparian. Inventory data indicate that this SHS may support almost 4 deer per section as well as being the primary habitat for Gambel's quail. Production data for desirable and intermediate shrub species indicates that production from desirable and intermediate shrubs is low at about 8 pounds per acre and would be reduced toward 5 pounds per acre if decline continues. There would be a potential for operator constructed waters to be located in or adjacent to this SHS which would potentially increase competition and cause a decline in diversity of summer birds from the present index of 2.402.

Grass Rolling Upland. The present existence of this SHS and the observed decline of other SHS's on the rolling upland landform once brush invasion has started indicates that there would be no change in this SHS under the NA Alternative (American Ag International, Inc. 1979). If brush invasion occurs, this SHS would likely change to a mesquite, half-shrub or mixed shrub rolling upland site by 2010. Once begun, such changes appear to occur even with complete protection from

livestock grazing. Brush invasion would be more likely to occur under the NA Alternative where utilization is excessive and improved management would not occur. This SHS is important to scaled quail (15 percent of observations) which fluctuate drastically in population levels from year-to-year. The NA Alternative would not permit any improvement in ecological condition which, based on the inventory data, would not improve habitat conditions for scaled quail. No observations of scaled quail were reported on poor ecological condition sites of this SHS.

Grass Flat. It is assumed that most sites of this SHS would remain in their present condition under the NA Alternative. These habitats could be lost with a combination of present grazing levels and changes in water supply. Warnock (1970) reports that water control structures result in brush invasion of this type. The highest production of desirable and intermediate shrubs were found in this type on poor condition sites, 98 pounds per acre, primarily from fourwing saltbush. Such brush invasions would result in loss of habitat for species reliant on dense grass cover.

Grass Mountain. This SHS presently has a lower percentage (about 45 percent) of poor condition sites than most other SHS's and a relatively low production of desirable and intermediate shrubs. Deer use is apparently fourth heaviest. Under the NA Alternative, operator construction of new waters would have a high potential to result in new competition for forage between livestock and wildlife.

Mixed Shrub Rolling Upland. American Ag International, Inc. (1979) reported that this SHS is in a downward successional trend toward the creosote rolling upland SHS. Assuming that the creosote type would be reached by 2010, the NA Alternative would result in the loss of about 75,000 acres of habitat presently supporting an estimated 190 deer resulting in a loss of about 178 deer. The new creosote rolling upland areas would support about 12 deer at present estimated densities. Production of desirable and intermediate shrub species would be reduced from about 28 pounds per acre to about 8 pounds per acre.

Mixed Shrub Mountain. According to American Ag International, Inc. (1979) this SHS would not change to any other SHS under different grazing pressure. However, this SHS is of major importance to deer and the majority (51 percent) of the SHS is presently in fair ecological condition which is apparently the ecological condition class for the SHS in terms of production of desirable and intermediate shrub species. The NA Alternative would not provide for any increase in shrub production. New operator constructed livestock waters would likely result in new competition for forage between livestock and wildlife.

Mesquite Rolling Upland. As reported by American Ag International, Inc. (1979), this SHS would likely decline in ecological condition to a creosote rolling upland or mesquite sand dune SHS, even with complete

Raptors. There is no change expected for raptor prey base diversity under the NA Alternative. Warnock (1970), discussing Torrey yucca, reports that if rangeland continues to be mismanaged yuccas would finally appear only sporadically (50-75 years). The same would occur with soaptree yuccas and by 2010, yuccas would be less abundant than at present for raptor perch and nest sites under the NA Alternative.

Threatened or Endangered Species. For those threatened or endangered species which have been listed because of habitat attrition, no habitat improvement, leading to eventual delisting, would be possible under the NA Alternative. Potential for decline in habitat ecological conditions could result in the listing of additional species.

Summary. Under the NA Alternative, ecological conditions are expected to decline in three SHS's on a minimum of 243,312 acres (8.4 percent of the Planning Area) by 2010, and no significant improvement in ecological condition would be expected. Forage allocations for big game would remain in the present misapportioned condition, and achievement of optimum populations would be unlikely.

Elimination of Livestock Grazing (ELG) Alternative

Under the ELG Alternative, the ecological condition of all habitats would trend toward climax communities (changes projected for most SHS's under the PA), although the time required to reach climax is unknown. Because of the unknown time factor and the lack of inventory data for excellent ecological condition sites, this alternative is evaluated by assuming the same level of improvement (10 points in ecological condition) used to evaluate the PA.

Riparian. This SHS would improve under the ELG Alternative. Changes are difficult to predict because of site variability and shortage of comparison data. However, the inventory data indicates an inital decline in summer bird diversity as poor condition sites are changed to fair, followed by an increase in summer bird diversity. The reason for the apparent decline in bird diversity is unknown. Expected changes would also include an increase in tree reproduction and understory shrub components. The problem of livestock concentration in riparian sites would be eliminated.

Pseudoriparian. Production of desirable and intermediate shrubs would increase from about 5.8 pounds per acre to an estimated 12 pounds per acre with improvement by 10 points under the ecological condition class. It is likely that improvement would exceed the 10 points, but effects cannot be evaluated because there are no inventoried sites in better than fair condition for comparisons. Any sites with livestock waters would be expected to improve most.

Big Game. An estimate of the increase in forage available to big game under the ELG Alternative, considering 50 percent utilization, the percentage shrubs in each species diet, and making a rough allowance for

each species, habitat preference indicates that forage would be available for approximately 16,000 deer and 3,600 pronghorn in the short-term and about 14,000 deer and 3,200 pronghorn in the long-term. This is due to decreased production of desirable and intermediate shrub species with improved ecological condition. The estimates shown on Table 3-14 are more reasonable when other limiting factors are considered. The ultimate effect on big game cannot be evaluated because of the lack of excellent condition sites for comparison.

Threatened or Endangered Species. The ELG Alternative would provide the best opportunities for accomplishing delisting of species which have declined because of habitat changes or habitat loss associated with livestock grazing. Examples may be Bell's vireo, Baird's sparrow, McCown's longspur, and possibly fish which have declined due to stream siltation related to overgrazing.

Summary. The ELG Alternative would provide the highest levels of big game populations attainable in the Planning Area. Ecological conditions in the valuable and sensitive riparian sites would be allowed to improve in ecological condition, benefitting endangered species.

Maximization of Livestock Forage Production (MLFP) Alternative

The primary distinction between the MLFP Alternative and the PA is the amount of acreage proposed for chemical treatment. The chemical treatment areas primarily involve two SHS's, creosote rolling upland and mesquite sand dune.

Creosote Rolling Upland. Approximately 40 percent of this SHS is proposed for chemical or mechanical treatment. The effect of such treatments would cause a rapid change in the ecological condition of the SHS, but not a change to a different SHS. American Ag International, Inc. (1979) reported that mechanical treatment and reseeding could result in establishing new grass rolling upland sites. Improvement of ecological condition in this SHS results in improved plant species and structural diversity. Summer bird diversity would decline while small mammal diversity would increase. As shown on Table 3-14 the MLFP Alternative would improve habitat conditions for pronghorn. The treated portions of the SHS would also be improved for scaled quail.

Mesquite Sand Dune. Approximately 57 percent of this SHS would be chemically treated to remove mesquite. The SHS, based on team observations of treated areas on the Jornada Experimental Range, would not be changed from the mesquite sand dune aspect. However, there would be a leveling of the dunes and a decrease in the density of mesquite, and an increase in ground cover in the dune interspaces. Scaled quail use of this SHS would be expected to increase from the 1 percent of inventory observations toward the 21 percent of observations in the mesquite rolling upland SHS.

Big Game. Only under the MLFP Alternative are pronghorn expected to reach optimum numbers of 1,059 animals. The chemical and mechanically

In areas where runoff is reduced, surface water quality is expected to slightly improve because of the lower amounts of suspended sediment and dissolved solids transported by the runoff water. The improvement of the water quality cannot be quantified.

Where rangeland improvements are constructed, local disturbances on 734 acres would cause an increase in runoff until vegetation becomes reestablished on the areas. These local areas of disturbances would not cause a significant change in total runoff from any particular watershed. Construction of the 14 additional dirt tanks would decrease that amount of water from reaching the surface water basins. The 40 additional wells would remove water from ground water aquifers, but the amount would not be a significant loss from any of the ground water resources. Exposed surface water at the new wells and tanks would increase the amount of water "lost" through evaporation, but the loss would be insignificant.

Chemical treatments on 9,705 acres of creosote on the gravelly range site would increase surface runoff an average of about 8 percent on the sprayed areas for 2 to 3 years following the treatments until vegetation becomes reestablished. In the long-term, however, runoff volumes would be the same as unsprayed areas because no significant changes in total ground cover are expected.

Chemical treatments on 29,772 acres of mesquite on the sandy and deep sand range sites would not significantly affect surface runoff because of nearly level slopes and very rapid infiltration rates of the sandy textured soils.

The soils on which chemical treatments would be conducted occur on nearly level slopes and are gravelly and sandy textured with rapid infiltration rates, therefore no runoff would occur under normal climatic conditions. Surface waters would be protected from contamination either by actually covering small water facilities with impervious materials during spraying or by leaving an untreated buffer strip of 1,500 feet between treated areas and surface waters.

Ground water resources would not be affected by the chemicals since average annual precipitation averages less than 10 inches, evaporation rates average greater than 90 inches per year (from a Class A pan), and depth to ground water is greater than 100 feet in the proposed treatment areas.

Mechanical treatments on 600 acres of cholla on the loamy range site of the Western Plateau MLRA would not significantly affect runoff rates because of nearly level slopes of the area.

Use of surface and ground water sources in Dona Ana, Luna, and Sierra Counties totaled over 400,000 acre-feet in 1975 (Sorensen 1977). Present water consumption by livestock and big game is 214 acre-feet per

year under preference numbers. Under the PA, water consumption would be 184 acre-feet in the short-term and 240 acre-feet in the long-term. The additional 26 acre-feet of water consumed in the long-term would be less than 1/10 of 1 percent of the total water use in the area. This would have an insignificant impact on the water resources in the area (Putnam 1981).

Summary. Under the PA, runoff would be decreased 0 to 6 percent, depending on soil types, vegetative types, ground cover, slopes, etc., within the watershed. No significant changes in runoff rates would be expected as a result of construction of rangeland improvements or vegetation treatment areas. Water consumption by livestock and big game would increase by 26 acre-feet by the year 2010.

No Action (NA) Alternative

Under the NA Alternative, no adjustments in livestock numbers or rangeland improvements are proposed. No significant changes in surface or ground water resources would occur under this alternative. Livestock and big game would continue to consume 214 acre-feet per year.

Elimination of Livestock Grazing (ELG) Alternative

Under the ELG Alternative, surface runoff volumes would be decreased 17 percent on grass, mountain shrubs, and juniper-grass watersheds of the hills, gravelly, gravelly loam, breaks, malpais, loamy, and draw sites where vegetative cover increases more than 6 percent. Runoff volumes would not decrease on watersheds with desert shrub vegetation because ground cover changes would not be large enough to affect runoff calculated by the method used (SCS 1972). Runoff volumes also would not be affected on the sandy, deep sand, shallow sandy, bottomland, salt flats, or clayey sites because of nearly level slopes or rapid infiltration rates of the sandy soils in these sites.

In areas where runoff is reduced, a decrease in suspended sediment and dissolved solids transported by runoff water would improve quality of surface waters. The improvement, however, cannot be quantified. Ground waters would not be affected by this alternative.

The ELG Alternative would eliminate the consumption of 213 acre-feet per year by livestock. Big game would consume four acre-feet of water in the long-term.

Maximization of Livestock Forage Production (MLFP) Alternative

Under the MLFP Alternative, the construction of additional rangeland improvements would result in the short-term local disturbance of 1,067 acres and increase of 333 acres over the PA. As in the PA, these local areas of disturbance would not cause a significant change in total runoff from any particular watershed. Dikes proposed to control gullying by water erosion would decrease the amount of water reaching the surface water basins, but the amount would be difficult to predict.

Enhancement of Other Resource Values (EORV) Alternative

Under the EORV Alternative, the elimination of livestock grazing on 29,085 acres of riparian habitat and certain watershed areas and the reduction of livestock grazing by 50 percent on rangeland in poor condition and 25 percent on fair condition would reduce livestock trampling in the short-term by 40 percent. However, in the long-term, trampling would increase approximately 10 percent over the existing situation because of the 21,996 additional AUMs proposed. In the short-term, this would slow the rate of artifact breakage and displacement, however, the rate of damage would increase in the long-term. The fencing of the Burton Bead site, and other significant sites as they are located, would result in a high impact on the site because of the elimination of grazing. No unvandalized sites would be fenced because the fencing could attract vandals. The increased protection of the cultural resource would allow for increased public interpretation. The increased numbers of people in the Planning Area for hunting would cause a minor impact through increased artifact hunting. The protection of watersheds that are severely eroding would slow the rate of destruction of any site in the watershed that is threatened by erosion. The impact of the rangeland improvements is shown in Table 3-18.

Summary. A summary of the impacts to cultural resources by the various alternatives is contained in Table 3-20.

Visual Resources

Proposed Action (PA)

Under the PA, structures and treatments would cause visual contrasts in the landscape. The amount of contrast cannot be assessed at this time because the specific location and design of proposed rangeland improvements and vegetation treatments are not known. The exact amount of visual impact of each treatment would be determined from a site-specific Environmental Assessment (EA) prior to implementation of new grazing management treatments. Visual contrasts are expected to be minimized to a degree that is compatible with the VRM class of the area in which the contrasts would occur. No change in VRM classes would be expected.

No Action (NA) Alternative

Under the NA Alternative, no new rangeland improvements or vegetative treatments are anticipated. This alternative would not impact visual resources. No change in VRM class would occur.

Elimination of Livestock Grazing (ELG) Alternative

Impacts to visual resources would occur as a result of the ELG Alternative. No new grazing related improvements would be constructed and no vegetative treatments would occur. Existing unnecessary rangeland

Removal of any existing rangeland improvements located within WSAs would reduce the amount of vehicle use on the existing access routes to such improvements. Removal of improvements and reduced use on access routes could improve the scenic and natural qualities of the WSAs.

Maximization of Livestock Forage Production (MLFP) Alternative

Under the MLFP Alternative, all activities, including grazing, would be managed in accordance with the Interim Management Policy until Congress makes a final wilderness decision.

Improved water distribution could increase livestock utilization of forage within the WSAs.

Enhancement of Other Resource Values (EORV) Alternative

All activities, including grazing, would be managed in accordance with the Interim Management Policy until Congress makes a final wilderness decision. This management would prevent degradation of wilderness values.

Recreation

Proposed Action (PA)

Under the PA, recreation use of the Planning Area would be impacted in various ways. Fences constructed without adequate access would hinder recreation and off-road visitor use of public land. Livestock watering devices constructed near existing or potential intensive use recreation areas would concentrate livestock use in these areas and thereby increase the interaction and conflict between recreationists and livestock. Site-specific Environmental Assessments (EAs) would be written prior to any construction projects and mitigating measures such as fencing and providing access would be required.

Non-hunting associated recreation visitor days would be expected to increase under the PA and all alternatives due to a predicted increase in the human population of the area.

Deer hunting pressure would increase with all alternatives, other than the No Action Alternative, due to increases in the big game population. For the purpose of this analysis the changes in deer hunting visitor days would be a proportional change based on the deer population. These projections are useful in identifying future trends in visitor use. Appendix I explains the method used to project future hunting visitor days.

Pronghorn hunting pressure would continue to be regulated by the New Mexico Department of Game and Fish. Future trends in pronghorn

Deer hunting visitor days would increase to approximately 6,243. This is an increase of 3,456 visitor days from the current level of use.

Pronghorn hunting visitor days would increase to 224 on public land. This is an increase of 165 visitor days from the current level of use.

Enhancement of Other Resource Values (EORV) Alternative

The EORV Alternative would impact recreational use of the Planning Area. Interaction and conflict between recreationists and livestock would continue.

Deer hunting visitor days would increase to approximately 6,243. This is an increase of 3,456 from the current level of use. Pronghorn hunting visitor days would remain at the present level of 59.

Social and Economic Conditions

Under the Proposed Action (PA), Maximization of Livestock Forage Production (MLFP), and Enhancement of Other Resource Values (EORV) Alternatives, the initial livestock forage allocation would be the same as the present 5-year average licensed use of 192,364 AUMs. This would be a decrease of 31,253 AUMs from existing preference. The livestock forage allocation following the monitoring period is not known at this time, but as discussed in Chapter 1, 165,500 AUMs would be the worst case allocation for the PA and MLFP Alternative and 102,610 AUMs for the EORV Alternative. Therefore, the social and economic impacts were analyzed using these figures. If monitoring studies prove these allocations to be too low, the impacts would not be as severe as stated in this section.

Proposed Action (PA)

Economic Conditions. The PA would impact neither the size nor the general characteristics of the total population within the Three-County Area. The ranch operators and members of their families who would be directly affected by changes in permitted levels of grazing comprised 0.7 percent of all residents of the area in 1980. While some short-term adverse economic impacts are projected on livestock ranches using public land within the Planning Area, these would not be associated with measurable shifts in patterns and employment and consequently, there would be no significant population movements.

Potential adjustments in grazing levels (after monitoring) would be a 14 percent decrease in permitted AUMs from 5-year average levels. This decrease would not occur if monitoring showed greater than expected amounts of forage. Individual permit holders might experience relatively greater adjustments from 5-year average grazing levels. Such a reduction would cut income from ranching significantly, but would not force termination of any operations. It is projected that under the PA most of the

Phase IV
Rangeland Management Program Document

The District Manager or his representative shall make contact with State agencies, district grazing advisory boards and the New Mexico Range Improvement Task Force within 90 days following the filing of a final EIS to review the draft Rangeland Management Program Document. The thrust of this phase will be to seek mutual agreement on the Rangeland Management Program Document. In the event of disagreements, further consultation may be necessary with the district advisory council. It is essential that this phase be conducted in an atmosphere of mutual trust, coordination and consultation since all subsequent range related actions will hinge on this document.

Phase V
Livestock Adjustments, Grazing Systems, Allotment Management Plans, Revision or Evaluation

A. Prior to the implementation of specific livestock adjustments, AMPs, grazing system or range improvement programs, the target group will be contacted by certified mail, asking them to what extent they wish to be involved.

B. Individual allottees and the State Land Commissioner will be contacted prior to each adjustment of grazing use and in the development, revision or evaluation of each AMP or other livestock management considerations.

C. The target group will be periodically informed and will be invited to review the progress at any time.

D. In those situations where BLM has issued proposed decisions and protests have been filed, where the allotment includes state land, the State Land Office will be advised and will be invited to participate fully in all meetings and/or actions pertinent to the proposed decision and subsequent protest.

E. In the course of consultation between the allottee, State Land Commissioner, and BLM regarding initial stocking rates following a grazing EIS, if an agreed upon stocking rate cannot be reached and after the issuance of a proposed decision, and the filing of a protest by the allottee, the New Mexico Range Improvement Task Force will be asked to review the allotment to assist in arriving at an acceptable stocking rate.

F. Either party may terminate the agreement as to paragraphs D and E above upon ten (10) days written notice.

LIST OF THE AVIAN SPECIES THAT MAY OCCUR IN THE SOUTHERN RIO GRANDE PLANNING AREA **

Common loon	15		*Aplomado falcon	3, 4, 5, 9	
Arctic loon			Merlin	NP	V
Eared grebe	15	V	American kestrel	NP	V
Western grebe	15	V	Scaled quail	3, 4, 5,	
Pied-billed grebe	15	V		11	V
White pelican	15	V	Gambel's quail	2	V
Double-crested cormorant	1, 15	V	Harlequin quail	5	V
*Olivaceous cormorant	1, 15		Turkey	5	V
Anhinga	1, 15		Ring-necked pheasant	1	
Magnificent frigatebird	NP	V	Sandhill crane	4	V
Great blue heron	1, 15	V	*Whooping crane		V
Green heron	1		Virginia rail	15	
Little blue heron	1, 15		Sora	15	V
Cattle egret			Common gallinule	15	
Great egret	1		American coot	15	V
Snowy egret	15	V	Killdeer	15	V
Louisiana heron	1, 15		Mountain plover	3, 4, 5	
Black-crowned night heron	1	V	Black-bellied plover	15	
least bittern	15		American woodcock		
American bittern	15	V	Common snipe	15	V
Wood stork			Long-billed curlew	15	V
White-faced ibis	15	V	Whimbrel	15	V
Whistling swan	15		Upland plover	1, 4	
Canada goose	15	V	Spotted sandpiper	15	V
White-fronted goose	15		Solitary sandpiper	15	V
Snow goose	15	V	Willet	15	V
Ross' goose	15		Greater yellowlegs	15	V
Fulvous whistling duck	1		Lesser yellowlegs	15	V
Mallard	15	V	Knot		V
Mexican duck	15	V	Pectoral sandpiper	15	V
Gadwall	15	V	Baird's sandpiper	15	
Pintail	15	V	White-rumped sandpiper	15	
Green-winged teal	15	V	least sandpiper	15	V
Blue-winged teal	15	V	Western sandpiper	15	V
Cinnamon teal	15	V	Dunlin	15	
European widgeon	15	V	Long-billed dowitcher	1	V
American widgeon	15	V	Semipalmated sandpiper	15	V
Shoveler	15	V	Marbled godwit	1	V
Wood duck	1		Sanderling	15	
Redhead	15	V	American avocet	15	V
Ring-necked duck	15	V	Black-necked stilt	15	V
Canvasback	15	V	Wilson's phalarope	15	V
Lesser scaup	15	V	Northern phalarope	15	V
Common goldeneye	15	V	Thayer's gull	15	
American goldeneye			Ring-billed gull	15	
Bufflehead	15	V	Franklin gull	15	V
Ruddy duck	15	V	Bonaparte's gull	15	
Hooded merganser	1		Forster's tern	15	V
Common merganser	15	V	Black tern	15	V
Turkey vulture	NP	V	Band-tailed pigeon	10	V
Black vulture	NP	V	Rock dove	NP	V
White-tailed kite			White-winged dove	1	V
*Mississippi kite			Mourning dove	1, 2	V
Sharp-shinned hawk	NP	V	Ground dove	1	
Cooper's hawk	NP	V	Inca dove	1, 4	
Red-tailed hawk		V	Yellow-billed cuckoo	1	
Swainson's hawk	8	V	Roadrunner	NP	V
Rough-legged hawk	3, 4, 5	V	Groove-billed ani	1	
Zone-tailed hawk	1		Barn owl	11, 12	V
White-tailed hawk	3, 4, 5		Great horned owl	1	V
Ferruginous hawk	3, 4, 5	V	Pygmy owl	13	V
Harris hawk	8		Burrowing owl	13	V
*Black hawk	1		Long-eared owl	3, 4, 5	V
Golden eagle	NP	V	Short-eared owl	3, 4	V
*Bald eagle	1	V	Saw-whet owl	1	
Marsh hawk	3, 4, 5	V	Whip-poor-will	1	
Osprey	15	V	Poor-will	1, 2	V
*Caracara	3, 4, 5		Common nighthawk	1, 15	V
Prairie falcon	3, 4, 5	V	Lesser nighthawk	1, 15	V
*Peregrine falcon	NP	V	White-throated swift	1	V

**

Avian species were corrected to appear in phylogentic order.

LIST OF THE AVIAN SPECIES THAT MAY OCCUR IN THE SOUTHERN RIO GRANDE PLANNING AREA

Black-chinned hummingbird	1	V	Rock wren	5, 7	V
Costa's hummingbird	2, 3, 4, 5		Mockingbird	NP	V
Anna's hummingbird			Catbird	1	
Broad-tailed hummingbird	1	V	Brown thrasher	10	V
Rufous hummingbird	1	V	Bendire's thrasher	8, 11,	
Calliope hummingbird	1, 7			12	V
Rivoli's hummingbird	7	V	Curve-billed thrasher	13	V
Blue-throated hummingbird	1	V	Crissal thrasher	6, 13	V
Belted kingfisher	1	V	Sage thrasher	7	V
Common flicker	1	V	Robin	1	V
Acorn woodpecker	10	V	Hermit thrush	10	V
Lewis' woodpecker	10		Wood thrush	10	V
Yellow-bellied sapsucker	1	V	Swainson's thrush	10	V
Williamson's sapsucker	1		Eastern bluebird	10	
Hairy sapsucker	1	V	Western bluebird	10	V
Downy woodpecker	1		Mountain bluebird	10	V
Ladder-backed woodpecker	1	V	Townsend's solitaire	5	V
Eastern kingbird	1, 2		Blue-gray gnatcatcher	2	V
Western kingbird	1	V	Black-tailed gnatcatcher	12	V
Cassin's kingbird	1, 2	V	Golden tailed kinglet	10	
Scissor-tailed flycatcher	11, 12		Ruby-crowned kinglet	15	V
Ash-throated flycatcher	1	V	Water pipit	15	V
Black phoebe	1	V	Sprague's pipit	3, 4, 5	
Say's phoebe	13	V	Bohemian waxwing		V
Traill's flycatcher	1	V	Cedar waxwing	10	V
Western flycatcher	1	V	Phainopepla	7	V
*Buff-breasted flycatcher	1, 7	V	Loggerhead shrike	NP	V
*Beardless flycatcher	1	V	Starling	NP	V
Eastern phoebe	NP		Hutton's vireo	10	V
Willow flycatcher		V	*Bell's vireo	1	V
Hammond's flycatcher	1		Gray vireo	10	V
Dusky flycatcher	1	V	Solitary vireo	1	V
Gray flycatcher	10		Philadelphia vireo	1	V
Coues' flycatcher	7, 10	V	Warbling vireo	1	V
Western wood pewee	1	V	Orange-crowned warbler	1	V
Olive-sided flycatcher	10	V	Black-and-white warbler	1	
Vermilion flycatcher	1	V	Prothonotary warbler		
Horned lark	3	V	Worm-eating warbler		
Violet-green swallow	9	V	Tennessee warbler	1	V
Tree swallow	1	V	Nashville warbler	1	V
Bank swallow	1	V	Virginia's warbler	1	V
Rough-winged swallow	15	V	Lucy's warbler	1	V
Barn swallow	15	V	Parula warbler	1	
Cliff swallow	1	V	Yellow warbler	1	V
Purple martin	10		Black-throated blue warbler		V
Mexican jay	10	V	Yellow-rumped warbler		V
Blue jay			Black-throated gray warbler	10	
Steller's jay	1	V	Townsend's warbler	2	V
Scrub jay	10	V	Black-throated green warbler		10
Black-billed magpie			Grace's warbler	10	V
Common raven	NP	V	Ovenbird	1	
White-necked raven	3, 4	V	Northern waterthrush	15	
Common crow	NP		MacGillivray's warbler	2	V
Pinon jay	10	V	Yellowthroat	15	
Clark's nutcracker	10		Yellow-breasted chat	1	V
Mountain chickadee	10	V	Red-faced warbler	10	
Plain titmouse	10	V	Wilson's warbler	1	V
Bridled titmouse	10	V	American redstart	1	V
Verdin	12	V	Painted redstart	10	V
Common bushtit	1, 10	V	House sparrow	NP	V
White-breasted nuthatch	10	V	Eastern meadowlark	3, 4, 5	
Red-breasted nuthatch	10		Western meadowlark	3, 4, 5	V
Pygmy nuthatch	10		Yellow-headed blackbird	15	V
Brown creeper	10		Red-winged blackbird	1	V
Dipper	1	V	Orchard oriole	1	
House wren	NP	V	Hooded oriole	1	
Bewick's wren	10	V	Scott's oriole	6, 7, 13	V
Cactus wren	6, 7	V	Northern oriole		V
Long-billed marsh wren	15		Brewer's blackbird	1	V
Canyon wren	6, 7	V	Great-tailed grackle	2	V

LIST OF THE AVIAN SPECIES THAT MAY OCCUR IN THE SOUTHERN RIO GRANDE PLANNING AREA

Common grackle		V	Field sparrow	4	V
Brown-headed cowbird	1	V	Vesper sparrow	9	V
Western tanager	10	V	Lark sparrow	8	V
Hepatic tanager	10	V	Rufous sparrow		V
Summer tanager	2	V	Cassin's sparrow	3, 4, 5	V
Cardinal	1		Black-throated sparrow	11	V
Pyrrhuloxia	2	V	Sage sparrow	3	V
Rose-breasted grosbeak	6, 7	V	Oark-eyed junco		V
Black-headed grosbeak	6, 7	V	Oregon junco	5	V
Blue grosbeak	1	V	Gray-headed junco	10	V
Indigo bunting	NP		Chipping sparrow	1	V
Lazuli bunting	1		Clay-colored sparrow	3, 4	V
Painted bunting	10		Botteri's sparrow	2	
Dickcissel	4, 9	V	Brewer's sparrow	8, 13	V
Evening grosbeak	1	V	Black-chinned sparrow	10	V
Cassin's finch	10	V	Harris' sparrow	10	V
House finch	NP	V	White-crowned sparrow	15	V
Pine siskin	10	V	Golden-crowned sparrow		
American goldfinch	3, 4, 5		Grasshopper sparrow	3	V
Lesser goldfinch	1	V	White-throated sparrow	1	
Lawrence's goldfinch	15		Fox sparrow	1	V
Red crossbill	10		Lincoln's sparrow	1	
Green-tailed towhee	2	V	Swamp sparrow	15	
Rufous-sided towhee	7	V	Song sparrow	1	V
Brown towhee	10	V	*McCown's longspur	5	
Lark bunting	4	V	Chestnut-collared longspur	3, 4, 5	V
*Baird's sparrow	3, 4, 5		Savannah sparrow	4	V

REPTILES AND AMPHIBIANS OF THE SOUTHERN RIO GRANDE PLANNING AREA

Tiger salamander	15	Ambystoma tigrinum	V
Plains spadefoot	3, 4, 5	Scaphiopus bombifrons	
Western spadefoot	15	S. hammondi	V
Couch's spadefoot	11	S. couchi	V
Great plains toad	7, 2, 1	Bufo cognatus	V
Texas toad	15	B. speciosus	V
Desert toad	8	B. punctatus	V
Little green toad	11, 12	B. debilis	V
Woodhouse's toad	1	B. woodhousei	
Canyon tree frog	1	Hyla arenicolor	
Leopard frog	1, 15	Rana pipiens	V
Bullfrog	1, 15	R. catesbeiana	V
Spiny softshell	1	Trionyx spiniferus	
Western box turtle	8	Terrapene ornata	V
Painted turtle	1	Chrysemys picta	
Pond slider	15	C. scripta	
Yellow mud turtle	1, 15	Kinosternon flavescens	V
Great plains skink	1	Eumeces obsoletus	
Many-lined skink	1, 3, 4	E. multivirgatus	
Western whiptail	9	Cnemidophorus tigris	V
Checkered whiptail	11, 12	C. tesselatus	V
New Mexico whiptail	2	C. neomexicanus	V
Chihuahua whiptail	5, 10	C. exsanguis	V
Desert-grassland whiptail	9, 2	C. uniparens	V
Little stripped whiptail	9	C. inornatus	V
Plateau whiptail	10	C. velox	V
Roundtailed horned lizard	11	Phrynosoma modestum	V
Short-horned lizard	7	P. douglassi	V
Texas horned lizard	4	P. cornutum	V
*Gila monster	6	Heloderma suspectum	
Greater earless lizard	3, 4, 5	Cophosaurus texanum	V
Lesser earless lizard	13	Holbrookia maculata	V
Clark's spiny lizard	1	Sceloporus clarki	
Desert spiny lizard	5	S. magister	V

5. During aerial spraying, spray would be turned off at the end of spray runs and during the time when a turn is being made to start another spray run. Initial spray swaths along buffer strips or other areas to be protected would be made parallel to these areas before spraying commences on the rest of the project area.

6. Mixing and loading operations would take place in an area where an accidental spill would not flow into a stream or body of water.

7. Surface waters would be covered to eliminate surface water contamination or a buffer strip of 1,500 feet adjacent to uncovered waters would be established. This would apply to areas adjacent to the Rio Grande, ranch houses, known locations of threatened or endangered plants, identified cliffs, nests of birds of prey (where they cannot be protected), or major drainages to surface water resources.

8. To minimize drift and volatilization, aerial applications of all the herbicides proposed for use would be confined to periods when wind speed is less than seven miles per hour, air temperature is under 85 degrees F., precipitation is not occurring or imminent, and air turbulence would not affect normal spray patterns. Label directions would be followed if they require additional restrictions. Low volatility formulations would be used.

9. Daily measurements of weather conditions would be made by trained personnel at spray sites during application. Additional measurements would be made at any time that a weather change appears to be taking place which could jeopardize safe placement of the spray on the target area.

10. Spray aircraft would normally be required to fly at an airspeed of less than 100 mph and less than 20 feet above the vegetation unless obstructions are encountered. Nozzle size and pressure would be designed to produce droplets with a diameter of 200-500 microns. All aerial nozzles would be equipped with automatic shutoff devices to prevent loss of herbicide along nonspray flight routes. Spray mixtures would contain drift reduction adjuvants where they would be effective.

11. During air operations, a radio network would be maintained which links all parts of the project. Direct radio communications between spray aircraft and ground observers would be established. Reconnaissance flights would be made before spraying begins to orient pilots as to locations of sensitive areas such as agricultural lands which are adjacent to spray targets.

12. All livestock would be removed from treated pastures prior to aerial spraying.

STATE WATER QUALITY STANDARDS FOR RUNOFF FLOWING INTO THE RIO GRANDE ABOVE ELEPHANT BUTTE AND CABALLO DAMS

Parameter	State Standard
Dissolved oxygen	4.0 mg/l
pH	6.0 to 9.0
Temperature	< 32.2°C (90°F)
Fecal coliform	< 1000/100 ml
Total dissolved solids	< 1500 mg/l
Sulfate	< 500 mg/l
Chloride	< 250 mg/l

STATE WATER QUALITY STANDARDS FOR RUNOFF FLOWING INTO THE RIO GRANDE FROM 1-MILE BELOW PERCHA DAM DOWNSTREAM TO PLANNING AREA BOUNDARY

Parameter	State Standard
Dissolved oxygen	5.0 mg/l
pH	6.6 to 8.8
Temperature	< 34°C (93.2°F)
Fecal coliforms	< 1000/100 ml
Total dissolved solids	< 2000 mg/l
Sulfate	< 500 mg/l
Chlorides	< 400 mg/l

STATE WATER QUALITY STANDARDS FOR RUNOFF FLOWING INTO THE RIO GRANDE BETWEEN ELEPHANT BUTTE AND CABALLO DAMS

Parameter	State Standard
Dissolved oxygen	5.0 mg/l
pH	6.6 to 8.8
Temperature	< 25°C (77°F)
Fecal coliforms	< 1000/100 ml

STATE WATER QUALITY STANDARDS FOR RUNOFF FLOWING INTO RIO GRANDE FROM CABALLO DAM DOWNSTREAM TO 1-MILE BELOW PERCHA DAM

Parameter	State Standard
Dissolved oxygen	5.0 mg/l
pH	6.0 to 9.0
Temperature	< 32.2°C (90°F)
Fecal Coliforms	< 100/100 ml

Source: New Mexico Health and Social Services Department, 1977

APPENDICES

APPENDIX D
WILDLIFE

FEDERAL THREATENED OR ENDANGERED SPECIES
POTENTIALLY OCCURRING ON SOUTHERN RIO GRANDE PLANNING AREA

(From List Request)
Determination of Effect

1. Echinocereus lloydii - may affect
2. Corypantha sneedii sneedii - may affect
3. Black-footed ferret (Mustela nigripes) - no affect
4. American peregrine falcon (Falco peregrinus anatum) - may affect (beneficial)
5. Whooping crane (Grus americana) - no affect

BLM SENSITIVE SPECIES

(Proposed for Listing, FR Vol. 45 No. 242)

1. Astragalus castetteri - may affect
2. Cereus greggii - may affect
3. Fraxinus cuspidata var. macropetala - no affect
4. Helianthus laciniatus crenatus - may affect
5. Oenothera organensis - may affect
6. Opuntia arenaria - may affect
7. Penstemon alamosensis - no affect
8. Perityle cernua - no affect
9. Rosa stellata - may affect
10. Silene plankii - no affect

STATE ENDANGERED ANIMAL SPECIES
POTENTIALLY OCCURRING ON SOUTHERN RIO GRANDE PLANNING AREA

Determination of Effect

1. Desert bighorn sheep (Ovis canadensis mexicana) - may affect
2. Olivaceous cormorant (Phalacrocorax olivaceus) - may affect (beneficial)

3. Mississippi kite (Ictinia misisippiensis) - may affect (beneficial)
4. Black hawk (Buteogallus anthracinus) - may affect (beneficial)
5. Bald eagle (Haliaeetus leucocephalus) - no affect
6. Caracara (Polyborus cheriway auduboni) - may affect (beneficial)
7. Aplomado falcon (Falco femoralis septentrionalis) - no affect
8. Red-headed woodpecker (Melanerpes erythocephalus corinus) - may affect (beneficial)
9. Bell's vireo (Vireo bellii) - may affect (beneficial)
10. Baird's sparrow (Ammodramus bairdii) - may affect (beneficial)
11. McCown's longspur (Calcarius mccownii) - may affect
12. Gila monster (Heloderma suspectum) - no affect
13. Trans-Pecos ratsnake (Elaphe subocularis) - no affect
14. Sonora Mt. king snake (Lampropeltis pyromelana pyromelana) - no affect
15. Mexican tetra (Astyanax mexicanus) - may affect (beneficial)
16. Bluntnose shiner (Notropis simus) - may affect (beneficial)
17. Silvery minnow (Hybognathus nuchalis) - no affect

STATE RARE AND ENDANGERED PLANT SPECIES
POTENTIALLY OCCURRING ON SOUTHERN RIO GRANDE PLANNING AREA

Determination of Effect

1. Draba standleyi - no affect
2. Aletes filifolius - may affect
3. Castilleja orgenorum - may affect
4. Opuntia wootonii - may affect
5. Perityle staurophylla var. homoflora - no affect
6. Rubus exrubicundus - no affect
7. Scrophularia laevis - may affect
8. Talinum longipes - no affect

9. Penstemon lanceolatus - may affect

10. Cryptantha paysonii - may affect

IN REPLY REFER TO

6840 (931)

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
New Mexico State Office
P. O. Box 1449
Santa Fe, New Mexico
87501

JUL 02 1981

Memorandum

To: Regional Director, USFWS, Albuquerque, NM

From: State Director, BLM, Santa Fe, NM

Subject: Formal Consultation on the Southern Rio Grande Grazing Management Draft Environmental Impact Statement (EIS)

The subject draft EIS has been determined to be a "construction project" by the Bureau of Land Management (BLM).

On December 4, 1980, the BLM requested a formal listing of species proposed or listed as threatened or endangered and potentially occurring within the Planning Area. A response was received from the U.S. Fish and Wildlife Service (FWS) on December 15, 1980. This response contained four listed animal species and one proposed species. Two endangered plants were subsequently added to the list.

Two species, the Chihuahua chub (Gila nigrescens), a proposed species and the Socorro isopod (Exosphaeroma thermophilus), a listed species, were determined not to occur within the Planning Area and will receive no further consideration.

A biological assessment was completed for the remaining five listed species. Two species, the black-footed ferret (Mustela nigripes) and the whooping crane (Grus americana), were determined to be not affected by the Proposed Action or alternatives. The remaining three species, Echinocereus lloydii, Corypantha sneedii sneedii, and the American peregrine falcon (Falco peregrinus anatum) received a may affect determination as discussed in the biological assessment.

Formal consultation pursuant to Section 7 of the Endangered Species Act is requested for the listed species for which a "may affect" determination has been made. In addition, FWS comments on the other (BLM-sensitive and New Mexico listed species) assessments would be appreciated.

In order to include the result of the consultation in the Final EIS, we would require the biological opinion by August 5, 1981.

In addition to the biological assessment, we have enclosed a copy of the Summary and Chapter 1 - Proposed Action and Alternatives of the DEIS - for your information. Your contact, if further information is needed, is Andy Dimas, BLM State Office, Santa Fe, NM (FTS 476-1231).

Charles W Luscher

Enclosures (2)
1-Biological Assessment
2-Summary and Chapter 1 of the Southern
Rio Grande Grazing Management DEIS

IN REPLY REFER TO:

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE

POST OFFICE BOX 1306
ALBUQUERQUE, NEW MEXICO 87103

SE

2-2-81-F-373

August 3, 1981

MEMORANDUM

TO: State Director, Bureau of Land Management, Santa Fe, New Mexico

Assistant

FROM: Regional Director, Region 2 (SE)

SUBJECT: Formal Section 7 Consultation on the Proposed Southern Rio Grande Grazing Plan

This is in response to your request of July 2, 1981, for formal Section 7 consultation, as provided by the Endangered Species Act, on the proposed grazing management alternatives for land administered by the Bureau of Land Management (BLM) within the Southern Rio Grande Planning Area. The SRGPA consists of 3.6 million acres in Dona Ana, Luna, Otero, Sierra, and Socorro Counties, New Mexico; the BLM administers 60 percent of the SRGPA.

The following background information and biological opinion are founded upon review of information furnished by the BLM, data in our files, and discussions with various people on the impacts of the proposed action upon endangered species.

Background Information

On December 4, 1980, the BLM requested a list of Federal endangered and threatened species that may occur within the planning area. As a result, the BLM determined Lloyd's hedgehog cactus (Echinocereus lloydii), Sneed's pincushion cactus (Coryphantha sneedii sneedii), and peregrine falcon (Falco peregrinus) may be affected by the proposed actions.

The proposed actions under consultation include five grazing management strategies for 198 grazing allotments. These alternative actions have been labeled as: proposed action (PA), no action (NA), elimination of livestock grazing (ELG), maximization of livestock forage production (MLFP), and enhancement of other resource values (ERVA).

The proposed action would require adjustment of stocking rates to improve range conditions after a 5-year monitoring and data accumulation period. Range improvements, primarily fencing and water developments, would be used to assist better livestock distribution. Vegetation would be lost from 114 acres that would be occupied by range improvements. The herbicides Dowco 290 and GRASLAN would be employed to eradicate some brush.

The no-action alternative would allow current livestock management practices and continued rangeland deterioration. No new range improvements would be implemented, except those supported by grazing receipt funds and operator-built improvements.

The elimination of livestock grazing option would remove all domestic grazing. Rangeland improvements would be limited to those which benefit other resource users.

The maximization of livestock forage production alternative would intensify rangeland management activities of the proposed action severalfold. Vegetation would be lost from 162 acres that would be occupied by range improvements.

The final alternative, enhancement of other resource values, requires a reduction of livestock grazing (approximately 40 percent of that occurring under the proposed action in the short term) and enhancement of other resource values. Range improvements would follow those for the proposed action, except 132 acres would be occupied by range improvements.

One to three endangered peregrine falcons (Falco peregrinus) are winter residents in the planning area. Current data indicate this species does not nest in the area and most likely will not be affected by any of the proposed grazing management actions because of its transitory status. Based upon this information, we will not consider the peregrine in this consultation.

Lloyd's hedgehog cactus (Echinocereus lloydii) was listed as endangered on November 28, 1979. This cactus inhabits gravelly-to-rocky soils on varied slopes and is known to occur in Texas and possibly in New Mexico, all distant from the planning unit. This information removes this cactus from further consideration in this consultation.

Sneed's pincushion cactus (Coryphantha sneedii var. sneedii) of New Mexico and Texas obtained its endangered status December 7, 1979. This species occurs in several grazing allotments. Its apparent habitat is rock crevices on limestone substrate. Removing this cactus from the wild is the major threat to its existence.

Impacts to Sneed cactus as a result of the varied alternatives could range from full protection to trampling and other forms of activities that would physically destroy some individuals and populations. Protection could be afforded by recognizing the locations of those cacti

and providing for maintenance of their habitat. Rangeland improvements proposed for the allotments known and suspected to contain this plant include chemical and mechanical brush control and installing pipelines, drinking tubs, wells, cattleguards, and fencing. Exact locations of the range improvements, with the exception of the general brush control areas, are unknown. Similarly, all locations of Sneed's pincushion cactus in the planning unit are unknown.

An important consideration of this consultation is the standard operating procedure (consultation document titled "Chapter 1, Proposed Action and Alternatives," pages 1-15). Prior to beginning any rangeland improvements, the BLM will evaluate whether or not a "may affect" situation exists for threatened or endangered species. BLM will consult with the U.S. Fish and Wildlife Service to avoid adverse actions on listed species, if a listed species might be affected.

Biological Opinion

The proposed action, elimination of grazing, maximization of grazing, and enhancement of other resource values alternatives, in my biological opinion, are not likely to jeopardize the continued existence of Sneed's pincushion cactus because of the protection afforded by the standard operating procedures and, secondarily, the habitat of this species.

The remaining alternative, no action, would allow current livestock management practices to continue and would aggravate existing range conditions. Based upon the general inaccessibility of Sneed's pincushion cactus to cattle and its apparent abundance outside of the planning unit, it is my biological opinion the current grazing operation is not likely to jeopardize the continued existence of this cactus.

Further formal consultation is not required unless a new species is listed that may be affected by this action or new information becomes available that addreses the welfare of Sneed's pincushion cactus.

In addition to this consultation, you have asked that we also comment on your sensitive and State of New Mexico rare and endangered species. The Albuquerque Ecological Services field station will address the State species in separate correspondence.

The plant species you have indicated as being proposed for listing are correctly candidates species or those currently under review to determine their status. Of these, only Opuntia arenaria and Penstemon alamosensis appear at this time to have potential for being listed as threatened or endangered. We do not believe your grazing alternatives will adversely affect either species. We suggest you keep track of the status of the Penstemon to help the current review process.

We appreciate the fine cooperation your staff has afforded us during this consultation.

Robert F. Stephens

cc: Phoenix Area Office (SE), Phoenix, AZ
Field Supervisor, Ecological Services, Albuquerque, NM
Director, FWS, Washington, D.C. (OES)
Director, New Mexico Department of Game and Fish, Santa Fe, NM

APPENDIX H
CULTURAL RESOURCES

APPENDIX H
CULTURAL RESOURCES

United States Department of the Interior

BUREAU OF LAND MANAGEMENT
DISTRICT OFFICE
P. O. Box 1420
Las Cruces, New Mexico
88004

IN REPLY REFER TO
1780

July 8, 1981

Mr. Thomas W. Merlan
State Historic Preservation Officer
505 Don Gaspar Ave.
Santa Fe, NM 87503

Dear Mr. Merlan:

As you are aware, the Programmatic Memorandum of Understanding entered into by the BLM and the Advisory Council on Historic Preservation provides for an alternative where a Class II cultural survey has not been completed on our Grazing Environmental Statement areas. This alternative calls for an agreement between the Bureau and the SHPO, if one can be reached, and if an agreement cannot be reached we would then notify the council of our impasse.

With this letter we wish to inform you of our position and our proposed alternative, since we do not have a Class II survey per se for the Southern Rio Grande EIS area.

Proposed Alternative:

1. We have a Class I inventory covering the entire area (p. 2-35).
2. We have a Class II survey on 21,120 acres (p. 2-35).
3. We have a Class III survey on 23,154 acres (p. 2-35).
4. We are proposing the following minimum surveys as described on page 3-62 of the DEIS.

Survey Area	Type Improvement	Total Acres to be Surveyed
40 ac/site	Dirt Tanks	560 ac
6 ac/mi	Pipelines	1,038 ac
40 ac/site	Water troughs	7,080 ac
1 ac/site	Wells where no water facilities in conjunction and 40 ac where water facility occurs.	40 ac
1 ac/site	Storage tanks - where no watering facilities and 40 ac if water facility in conjunction with.	40 ac
6 ac/mi	Fences	1,536
600 ac	Mechanical Brush Control (on total area proposed)	600
	TOTAL CLASS III	10,888 ac

We would then have a total of 55,162 acres covered by a cultural survey which would be the equivalent of a 1.88% survey (55,162 ÷ 2,933,258).

At the same time this proposal is in operation there will be numerous other Class III suveys going on simultaneously, such as the Anapra ORV proposal, the Southern Dona Ana County Airport survey, energy mineral surveys, etc., which will yield much more information than the Southern Rio Grande Grazing EIS refers to.

Since we do not have the time nor funding to obtain a larger sample size we would like either your concurrence to this approach or your counter proposal recognizing our budgetary constraints. We need to have your answer as soon as possible so we may take whatever steps may appropriate.

Sincerely yours,

Donnie R. Sparks

Daniel C. B. Rathbun
District Manager

cc: NM State Director

STATE OF NEW MEXICO
DEPARTMENT OF
FINANCE AND ADMINISTRATION
STATE PLANNING DIVISION

BRUCE KING
GOVERNOR

KATHLEEN R. MARR
SECRETARY

505 DON GASPAR AVENUE
SANTA FE, NEW MEXICO 87503
(505) 827-2073
(505) 827-5191
(505) 827-2108

ANITA HISENBERG
DIRECTOR

JOE GUILLEN
DEPUTY DIRECTOR

July 28, 1981

Mr. Daniel C. B. Rathbun
District Manager
Las Cruces District
Bureau of Land Management
Post Office Box 1420
Las Cruces, New Mexico 88004

Attn: Mr. Ed Webb, EIS Team Leader

RE: Southern Rio Grande
Grazing EIS

Dear Mr. Rathbun:

Thank you for your letter of July 8, 1981 providing this office with your suggested alternative to conducting Class II cultural resource surveys of the Southern Rio Grande Grazing Environmental Statement areas as required by our Programmatic Memorandum of Agreement. As you have stated, the Class II surveys have not been completed for the EIS areas, and I agree that for the reasons stated, it is unlikely that surveys of the nearly three million acres covered by the EIS will be completed at any time before completion of EIS.

As an alternative to completing these surveys, I agree that a firm commitment by the Las Cruces District to conduct Class II inventory surveys of all range improvements described in the DEIS and other land disturbing activities on BLM land not covered in this statement together with a concerted effort to integrate cultural resource data generated by other sources with your existing inventory can result in an acceptable alternative. In his May 13, 1981 letter, your District Archaeologist, Peter Laudeman, has listed potential sources outside the BLM for this additional data. In addition, any funds which may become available for Class II survey should be expended in a manner which will give the best results, such as in the little known areas of high site density listed by Mr. Laudeman in the above letter.

☆ U.S. GOVERNMENT PRINTING OFFICE:1981—777-116 / 17

This alternative, while acceptable to me, will, until the sample size is significantly increased over the current 1.88%, not alleviate the planning and management problems addressed in my April 17, 1981 letter. I do not believe that these problems will prevent the BLM from conducting an effective range management and improvement program, but I do think that the shortcomings of not having adequate cultural resource information at the inception of your management program should be discussed in your presentation of the alternative to the Class II survey.

I do not concede that there is no need to conduct the Class II surveys in order to obtain the necessary information for making effective planning and management decisions. However, I do recognize that budgetary and other constraints often force us to proceed with programs without completely understanding all consequences of the implementation. I appreciate the opportunity to discuss this alternative with you and look forward to working with you and your District Archaeologist to develop the necessary data and inventory as rapidly as possible.

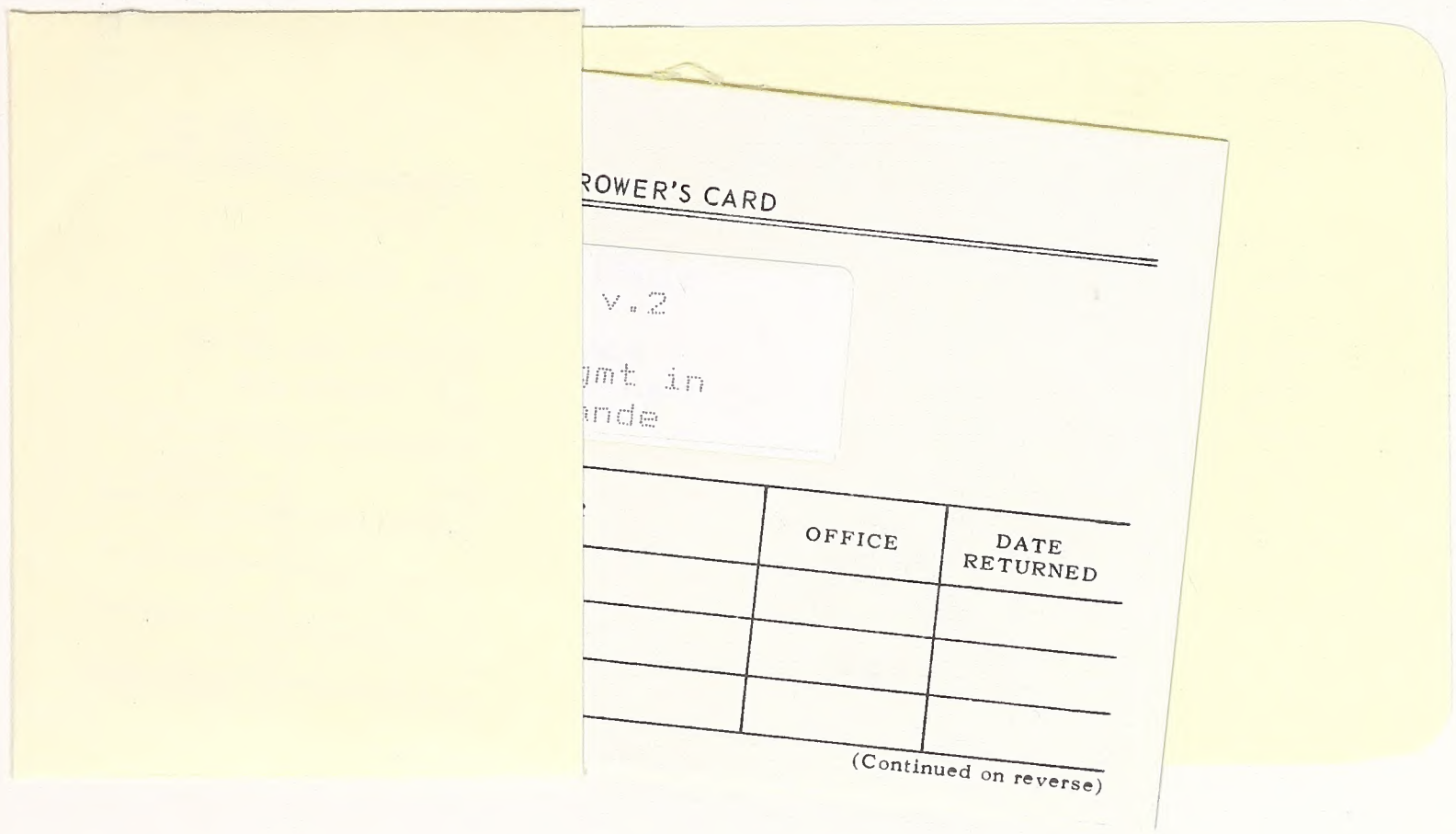
Sincerely,

Thomas W. Merlan
State Historic Preservation Officer
Historic Preservation Bureau

TWM:DER:jmg

cc: Charles W. Luscher

Betsy Reed



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